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Braintree District Council
Chelmsford City Council
Colchester Borough Council
Tendring District Council

Objectively Assessed Housing Need Study

November 2016 update

Peter Brett Associates

16 Brewhouse Yard, Clerkenwell, London EC1V 4LJ
T: +44 (0)207 566 8600 E: london@peterbrett.com

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1 INTRODUCTION

Purpose of the study

1.1 This study provides an objective assessment of housing need ('OAN') for the housing market area comprising Braintree, Chelmsford, Colchester and Tendring, over the plan period 2013-37. It updates the OAN study produced by Peter Brett Associates (PBA) for the four Councils in July 2015. The main reason why an update is necessary is that since the original study three sets of important new data have become available:

i In September 2015 the Office of National Statistics (ONS) published a report and data tool regarding Unattributable Population Change (UPC). This has a material impact on our findings and recommendations for Tendring.

ii In December 2015 the four Councils published a new assessment of affordable housing need (findings for Tendring were updated in 2016).

iii Crucially, 2016 saw the release of new official demographic projections, comprising the ONS sub-national population projection in May and the CLG household projection in July.

1.2 As well as incorporating this new information, the present study provides additional analysis on two technical issues: future household formation rates (household representative rates, headship rates) and the alignment of homes and jobs. In relation to alignment we use new economic forecasts from the East of England Forecasting Model (EEFM) and Experian.

1.3 The demography in the 2015 report started from the 2012-based official demographic projections, which it re-based to 2013. Although these official projections are now superseded by the 2014-based ones, they remain relevant, because the National Planning Practice Guidance (PPG) advises:

'Wherever possible, local needs assessments should be informed by the latest available information. The National Planning Policy Framework is clear that Local Plans should be kept up-to-date. A meaningful change in the housing situation should be considered in this context, but this does not automatically mean that housing assessments are rendered outdated every time new projections are issued.[1]'

1.4 In line with this advice, this updated study does not necessarily imply that the 2015 needs assessment is out of date. It is for the Councils to judge if our updated findings represent a 'meaningful change in the housing situation', and hence if they should reconsider their view of the OAN or plan targets based on it.

1.5 In line with the National Planning Policy Framework (NPPF), the OAN should form the basis of housing provision targets in the four authorities' emerging plans. But in setting those targets the Councils should also have regard to other considerations. Targets could be below the OAN if it is demonstrated that the area does not have the

[1] ID 2a-016-20150227

sustainable capacity to meet its need in full. Alternatively, targets could be set above the OAN in order to meet cross-boundary need from more constrained areas, provide more affordable housing or promote other policy objectives. These additional considerations are beyond the scope of the present study.

Report overview

1.6 The NPPF and PPG advise that, where housing market areas (HMAs) extend beyond administrative boundaries, housing needs assessments should cover these wider areas rather than individual local authorities. Therefore our first step, in Chapter 2 below, is to test whether the four authorities that commissioned the study form an HMA. We find that this is indeed the case and go on to assess the area's housing need. In line with the assessment method set out in the PPG, the first step is to produce a 'starting point' demographic projection that shows what housing need would be if past demographic trends continue over the plan period. We do this in Chapter 3 below. We then consider the impact of factors that are not captured in the starting point projection, comprising:

- London's housing need (Chapter 4)
- Past housing provision and market signals (Chapter 5)
- Future labour demand (Chapter 6)

1.7 Chapter 7 briefly discusses affordable housing need – which we conclude does not warrant an increase in the OAN but may have implications for housing targets (requirements) in Local Plans. Summary and conclusions are in Chapter 6.

1.8 This document is a revised version of the 2015 OAN report. Substantive revisions are limited to those parts where we have new material to offer – mainly demography, labour market alignment, market signals and of course conclusions. Other parts of the report are unchanged, except for corrections and clarifications.

1.9 In this update we address policy as it stands in November 2016. Planning policy is clearly in a state of flux with Article 50 due to be triggered in early 2017 and a new White Paper expected. The Councils will need to keep this under review.

2 DEFINING THE HOUSING MARKET AREA

Overview

2.1 As mentioned earlier, where an HMA extends across two or more local authorities those authorities are required to work together to assess needs across the area as a whole. The underlying idea is that much of the demand or need for housing is not tied to specific local authority areas, as people's decisions on where to live are driven by access to jobs, schools, family etc., rather than administrative boundaries. An HMA is an area of search, bringing together places which share similar household characteristics.

2.2 To help identify such areas, the PPG suggests a list of indicators including house prices, migration, travel-to-work areas and school and retail catchments. The guidance does not prescribe how these indicators should be analysed, except for migration – where it says that a high proportion of house moves, 'typically 70%' excluding long-distance moves, should be contained within the area. Travel-to-work areas, also mentioned in the PPG and defined by ONS, are also based on the idea of containment – in this case relating to commuting rather than migration.

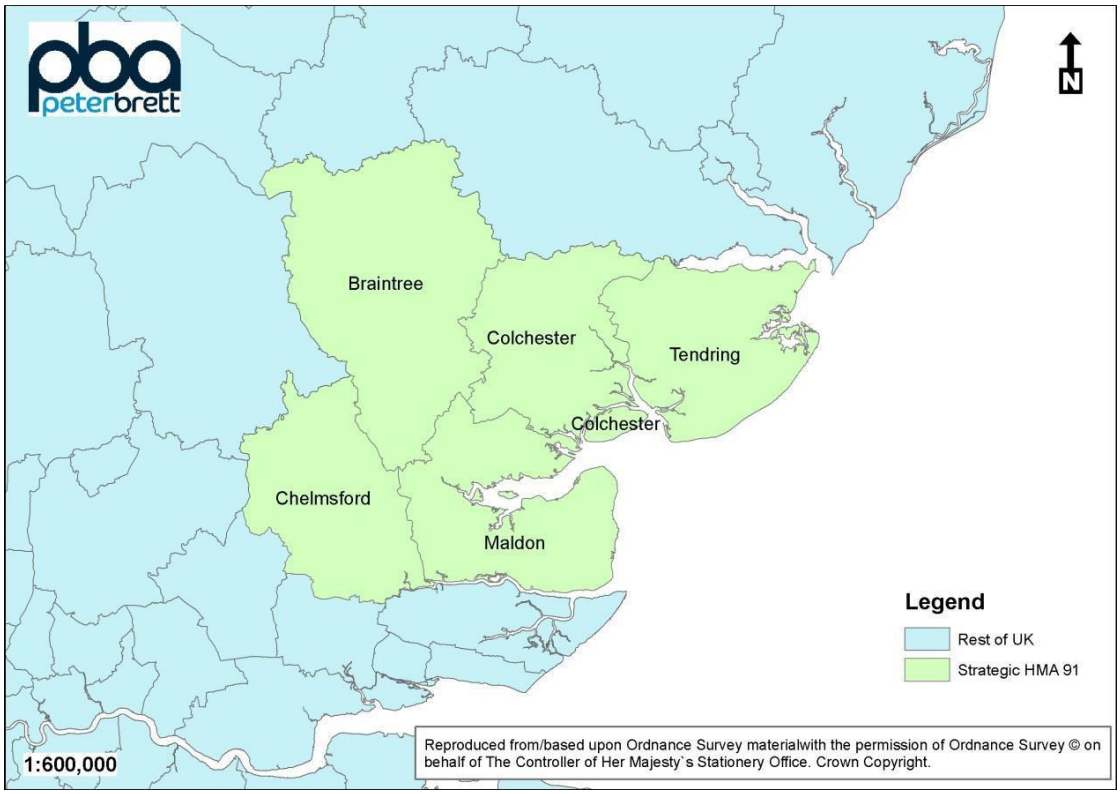
2.3 To identify HMA boundaries in this study we start from the national geography of housing market areas developed for the National Housing and Planning Advisory Unit (NHPAU). We then verify and update that geography, using the latest data available and the key indicators recommended in the PPG.

The NHPAU geography

2.4 This HMA geography was produced in 2010 for the former NHPAU by Manchester University and others, using data from the 2001 Census. Following the same logic as the PPG, the NHPAU geography defines a hierarchy of HMAs based primarily on migration and commuting containment. It is a useful starting point because it is a national top-down geography, which maximises containment across England as a whole. This is a sound approach, because if each local authority were to define its own HMA, centred on its own area, there would be nearly as many HMAs as local authorities, and HMAs would hugely overlap. Unfortunately, the NHPAU study has not been updated following the 2011 Census.

2.5 As shown on Figure 2.1, the NHPAU geography brings together into one 'strategic housing market area' the four authorities that commissioned this study with a fifth district, Maldon (referenced as HMA 91 by NHPAU).

Figure 2.1 The NHPAU strategic HMA



Source: PBA

2.6 Below, we test this strategic HMA based on the same key indicators, migration and commuting, but using the latest available data from the 2011 Census.

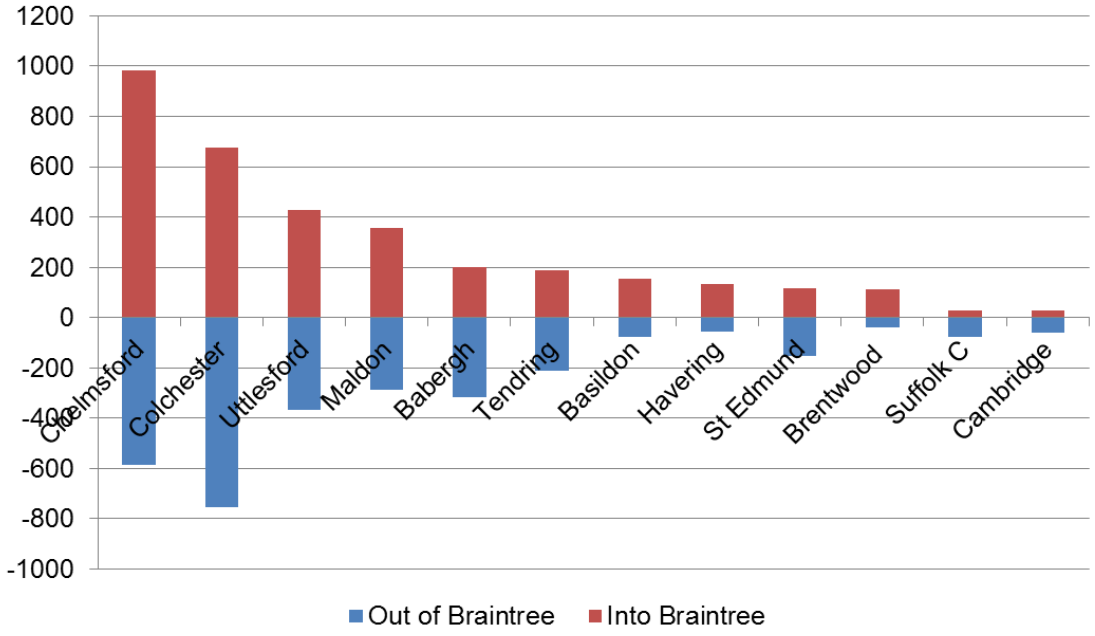
Migration

Origins and destinations

2.7 For each authority in the NHPAU strategic HMA, the charts below show the other authorities with which that authority has the largest combined gross migration flows. The analysis is for the 12 months preceding the Census and excludes internal house moves within local authorities. Using these combined migration flows (in to an out of each authority) to measure the strength of links with other districts:

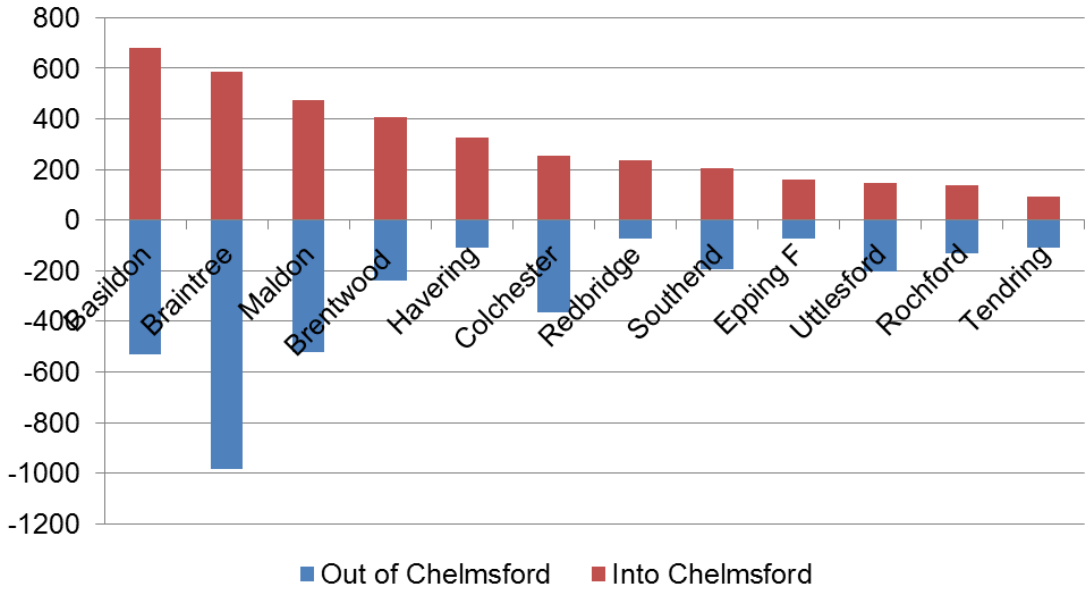
- Braintree's strongest links are with Chelmsford and Colchester.
- Chelmsford's strongest links are with Braintree, Basildon and Maldon.
- Colchester's strongest links are with Tendring and Braintree.
- Tendring's strongest link is with Colchester.
- Maldon's strongest links are with Chelmsford, Braintree and Colchester.

Figure 2.2 Cross-boundary migration to and from Braintree, 2010-11, persons



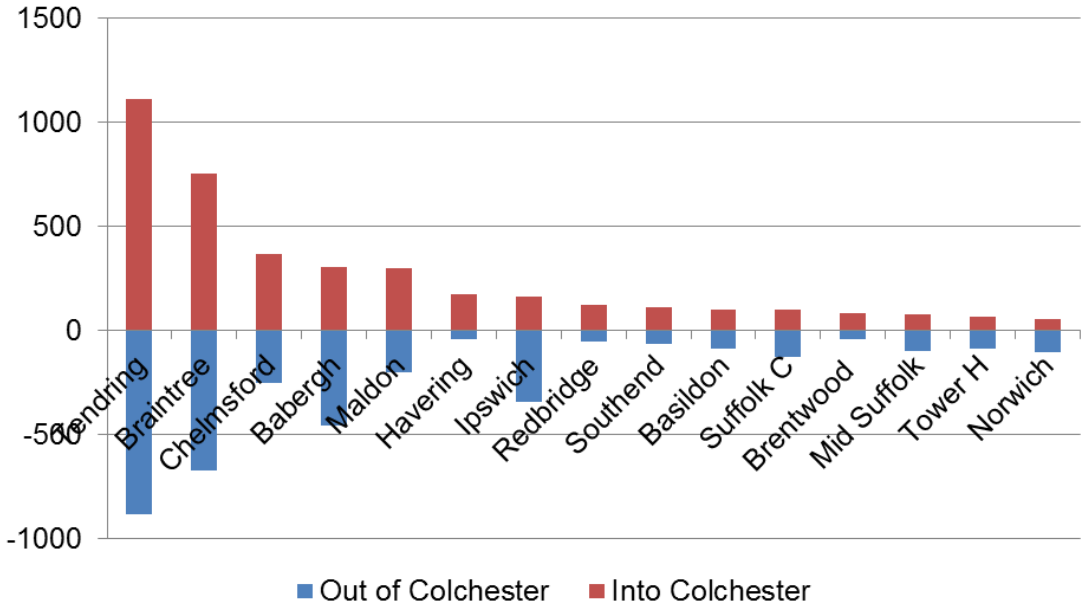
Source: ONS, PBA

Figure 2.3 Cross-boundary migration to and from Chelmsford, 2010-11, persons



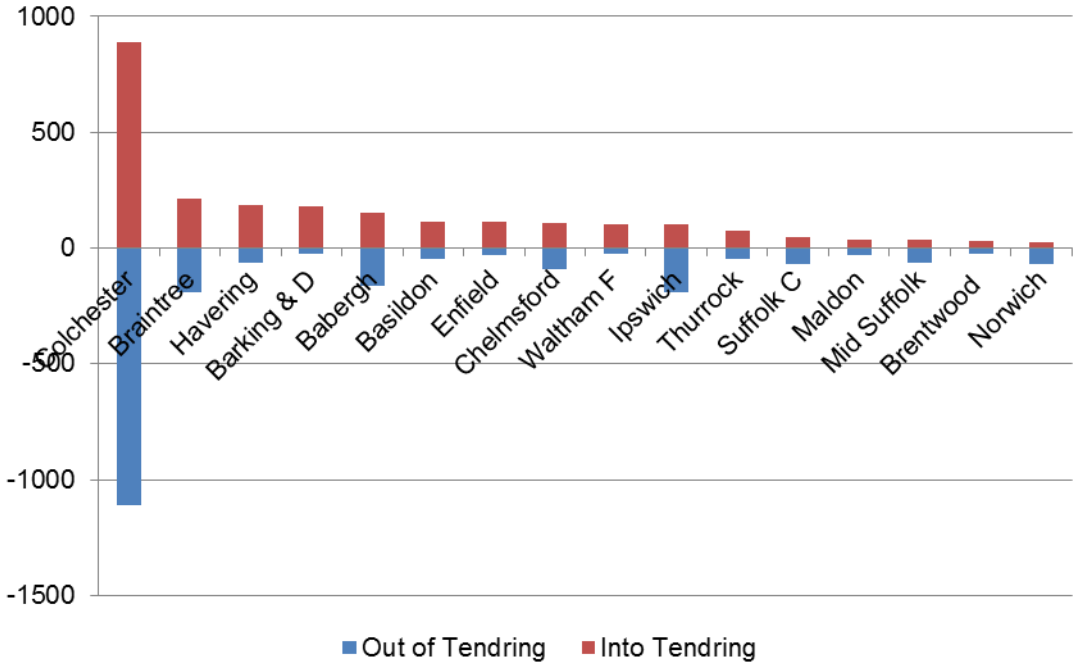
Source: ONS, PBA

Figure 2.4 Cross-boundary migration to and from Colchester, 2010-11, persons



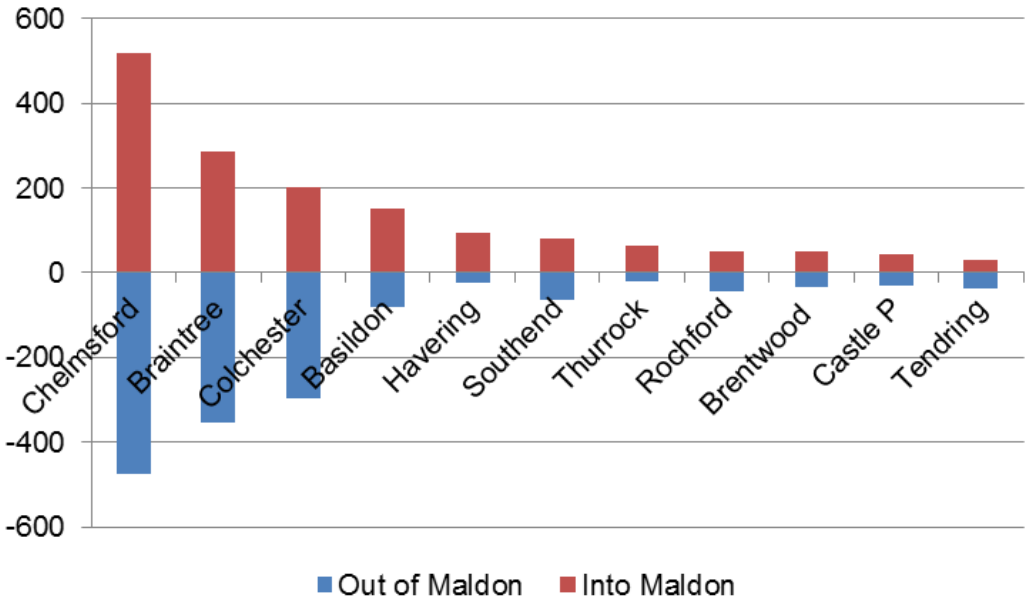
Source: ONS, PBA

Figure 2.5 Cross-boundary migration to and from Tendring, 2010-11, persons



Source: ONS, PBA

Figure 2.6 Cross-boundary migration to and from Maldon, 2010-11, persons



Source: ONS, PBA

2.8 In summary, for each authority in the NHPAU strategic HMA, the strongest migration links are with other authorities in that HMA. Of the areas outside the strategic HMA Basildon has strong links with Chelmsford, but there is no one authority that is strongly linked to all the members of the HMA. Uttlesford, for example, comes third in the list of districts linked to Braintree and tenth on Chelmsford's list, but it does not appear in the lists for Colchester, Maldon or Tendring. On this basis there is no additional authority that has a good case for joining the strategic HMA.

2.9 Other than places already discussed, the HMA authorities' strongest links are with London. Thus, Chelmsford received a large total inflow from the London Boroughs of Redbridge and Havering, though there is little movement in the opposite direction. Similarly, Tendring is on the receiving end of a large one-way flow from Havering, Barking & Dagenham, Enfield and Waltham Forest.

2.10 In summary, the analysis so far suggests that the five local authorities in the NHPAU's strategic HMA are more closely linked to one another than to any other area. The only exception to this general statement is that several of the authorities receive large migration inflows from London. Given that it would not be practical to include parts of London in the HMA, this suggests that NHPAU's strategic HMA is correctly defined. But before drawing conclusions we test the evidence more closely.

The 70% self-containment test

2.11 In this section we test the strategic HMA's migration containment against the PPG criterion that 'typically' some 70% or more of all house moves that either begin or end in the HMA, excluding long-distance migration, should occur within the HMA. The test is specified in more detail in an earlier CLG publication, on which the PPG is clearly based:

> ***'Identifying suitable thresholds for self-containment:*** *The typical threshold for self-containment is around 70 per cent of all movers in a given time period. This threshold applies to both the supply side (70 per cent of all those moving out of a dwelling move within that same area) and the demand side (70 per cent of all those moving into a dwelling have moved from that same area).'*[2]

2.12 Table 2.1 shows these measures of containment for the strategic HMA. In this calculation:

- Calculation of the origin and destination containment.
- Migration data, as before, are taken from the 2011 Census and relate to persons moving house in the year ending on Census day.
- The analysis includes moves within authorities, which were excluded from the calculations in the July 2015 report.
- Total moves comprise moves within the UK. It excludes those whose origin or destination is overseas, because by definition these are long-distance moves, which according to the PPG should be excluded from the total.[3]

2.13 This measure of total moves is larger than the PPG intends, because it does not exclude long-distance moves within the UK. Therefore the resulting containment ratios will be underestimates, though we cannot tell by how much, because the PPG does not define such distance moves, but only describes them by example: 'e.g. those due to a change of lifestyle or retirement'. On this basis we cannot identify long-distance moves in the statistics, though we believe that retirement migration to the Essex coast plays a significant part.

Table 2.1 Migration containment, strategic HMA, 2010-11, persons

Origin (moves from)	**Destination (moves to)**			
	the HMA	Elsewhere	Total moves from the HMA	**Origin containment**
the HMA	49,192	19,862	69,054	**71%**
Elsewhere	20,401			
Total moves to the HMA	69,593			
Destination containment	**71%**			

Source: ONS, PBA. The strategic HMA comprises Tendring, Colchester, Chelmsford, Braintree and Maldon.

2.14 As calculated in the table, containment ratios for both origin and destination are equal at 71%, marginally exceeding the PPG threshold.

[2] Communities and Local Government, Identifying sub-regional housing market areas, advice note, March 2007.

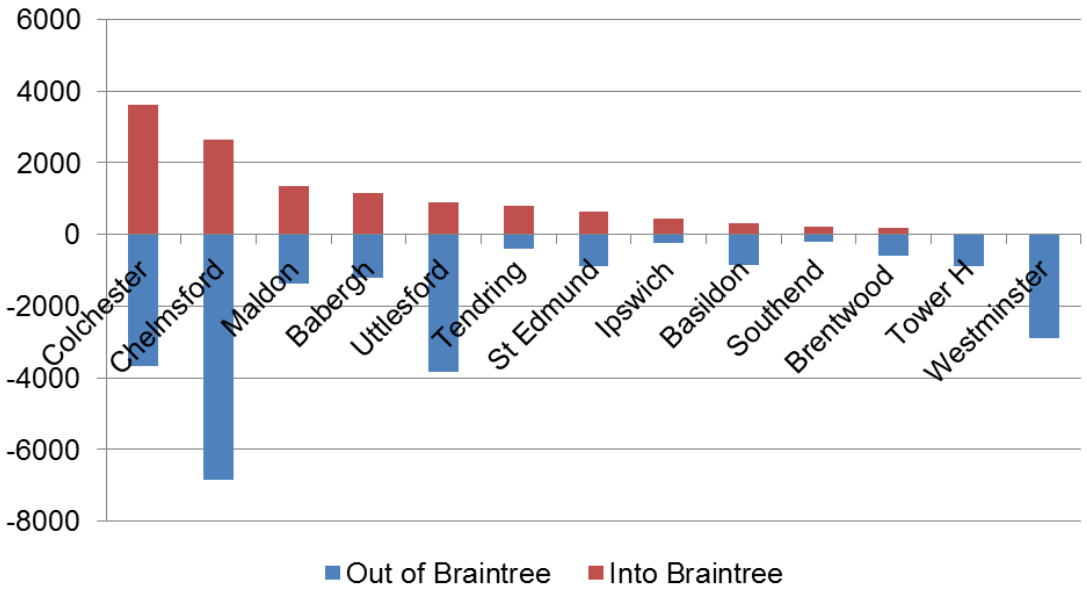
[3] In the July 2015 report we did not fully include moves internal to the four districts in the self-containment calculations (moves between the Councils in the HMA were classed as external). In this current version, following best practice, we count all moves between the four Councils as internal to the HMA, and so counting towards the self-containment threshold.

Commuting

Origins and destinations

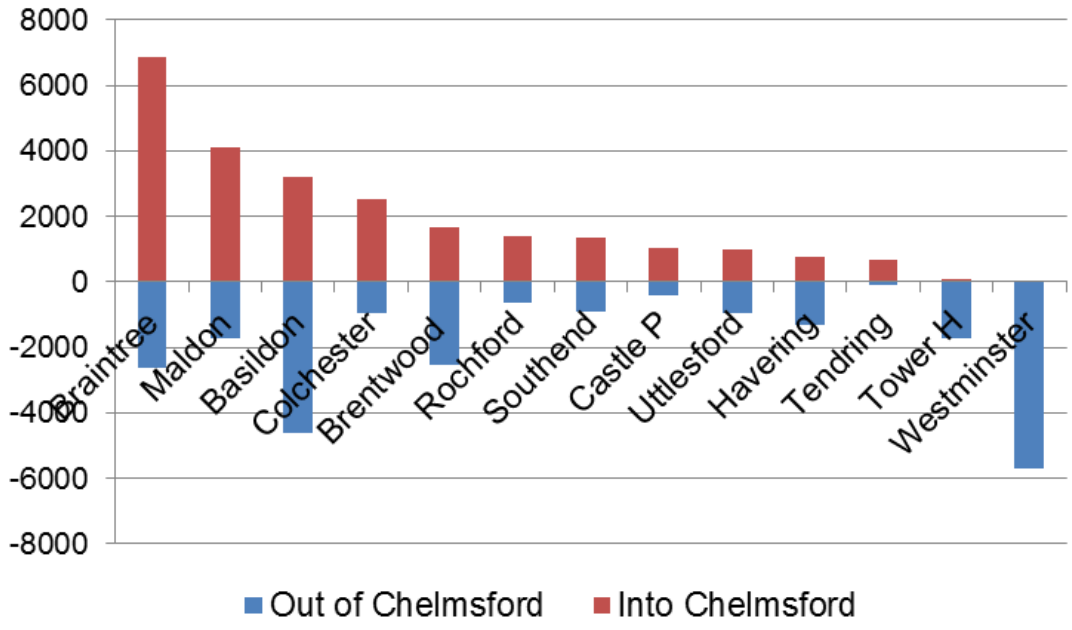
2.15 The charts below show the main origins and destinations of cross-boundary commuting to and from each authority in the strategic HMA.

Figure 2.7 Cross-boundary commuting to and from Braintree, 2011, persons



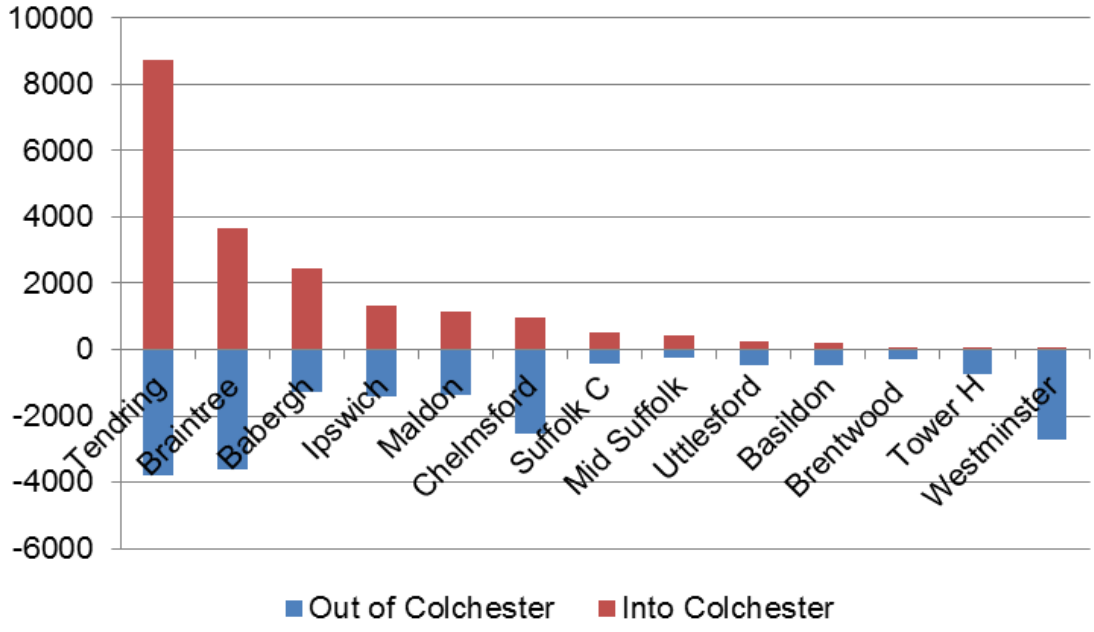
Source: ONS, PBA

Figure 2.8 Cross-boundary commuting to and from Chelmsford, 2011, persons



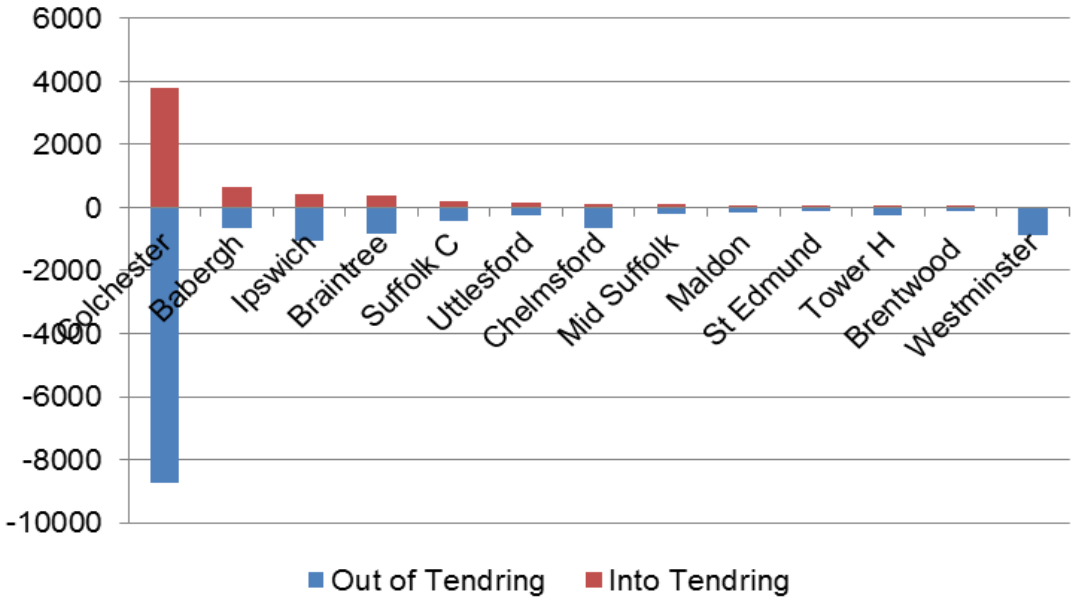
Source: ONS, PBA

Figure 2.9 Cross-boundary commuting to and from Colchester, 2011, persons



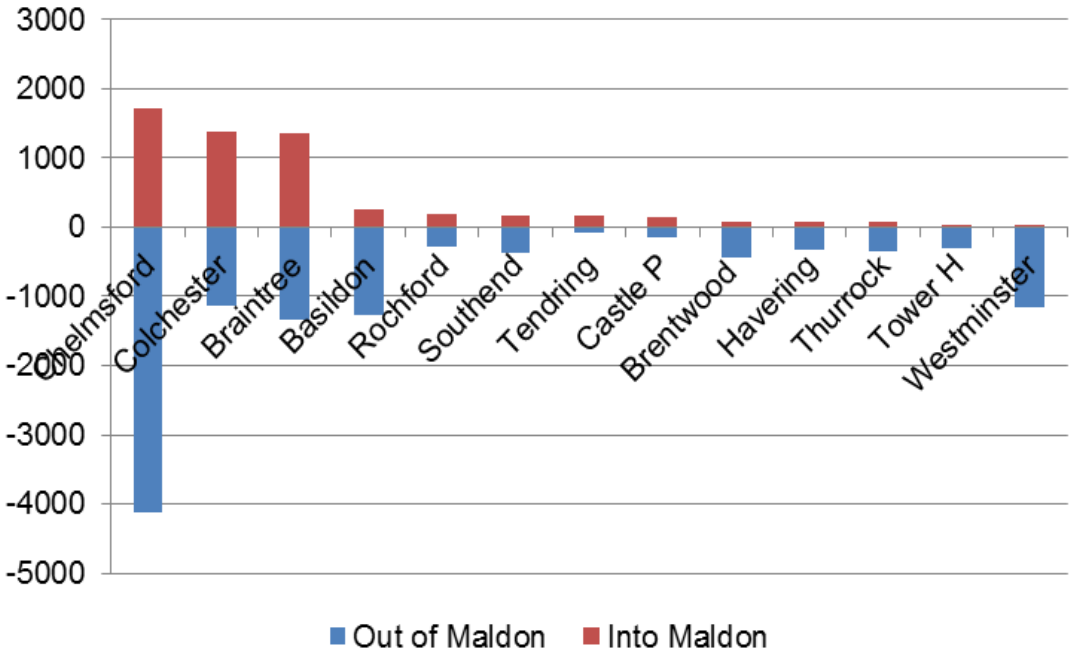
Source: ONS, PBA

Figure 2.10 Cross-boundary commuting to and from Tendring, 2011, persons



Source: ONS, PBA

Figure 2.11 Cross-boundary commuting to and from Maldon, 2011, persons



Source: ONS, PBA

2.16 Using the combined commuting flows (in and out):

- Braintree's strongest links are with Colchester and Chelmsford.
- Chelmsford's strongest links are with Braintree, Maldon and Basildon.
- Colchester's strongest links are with Tendring and Braintree.
- Tendring's strongest links are with Colchester.
- Maldon's strongest links are with Chelmsford, Colchester and Braintree.

2.17 There are also large outflows from the strategic HMA (particularly Braintree, Chelmsford and Colchester) to London, especially to Westminster, but also Tower Hamlets and Havering.

The containment test

2.18 Table 2.2 below shows containment ratios for commuting.

Table 2.2 Commuting containment, strategic HMA, 2011

Origin (trips from)	Destination (trips to)			
	the HMA	Elsewhere	Total trips from the HMA	**Origin containment**
the HMA	227,149	75,351	302,500	**75%**
Elsewhere	36,131			
Total trips to the HMA	263,280			
Destination containment	**86%**			

Source: ONS, PBA. The strategic HMA comprises Tendring, Colchester, Chelmsford, Braintree and Maldon.

2.19 The strategic HMA's containment ratios for commuting are 86% for destination and 75% for origin, which are higher than the ratios for migration.

2.20 In a change from the July 2015 report, the containment calculations include 'home workers' as these people remain in the HMA for employment purposes. The numbers are relatively small and therefore their inclusion does not make a significant difference. We continue to exclude those workers with 'no fixed workplace' as we do not know whether these people are working overseas, in other districts or, if they are 'on the road' in the local area.

2.21 In relation to commuting neither the PPG nor the 2007 CLG advice[4] identify a threshold to help define housing market areas. But such a threshold is provided in the ONS definition of Travel to Work Areas, which are mentioned in the PPG:

'The current criterion for defining TTWAs is that generally at least 75% of an area's resident workforce work in the area and at least 75% of the people who work in the area also live in the area… However, for areas with a working population in excess of 25,000, containment rates as low as 66.7% are accepted.'

2.22 The strategic HMA comfortably exceeds the 66.7% threshold.

House prices

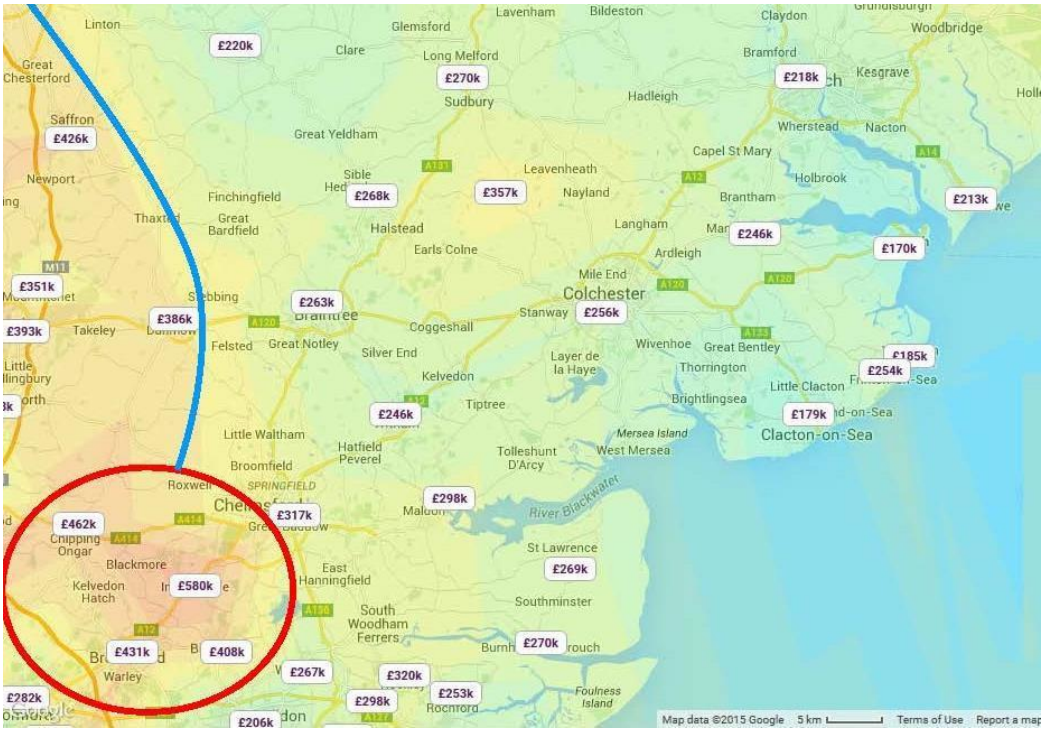
2.23 Alongside migration and commuting, house prices are the only 'hard' evidence mentioned in the PPG, as opposed to qualitative and contextual evidence such as household areas of search and catchment areas for schools or retail centres. Therefore, to supplement the above analysis of migration and commuting, we have considered if house prices provide any evidence that would help define a housing market area.

2.24 Figure 2.12 is a heat map of house prices across Essex. It shows high prices in Brentwood (the red circle) and an M11 corridor (the blue line). But there is no

[4] Communities and Local Government, Identifying sub-regional housing market areas, Advice note, March 2007

pattern that would help us define the boundaries of an HMA that includes our commissioning authorities.

Figure 2.12 House prices, February 2015



Source: Zoopla, Heatmap of UK property values

2.25 Table 2.3 shows house price change in the 10 years to 2012 for the Essex districts. There is very little variation between the districts, and no distinct spatial pattern that can help draw housing market areas.

Table 2.3 House price changes, Essex districts, 2002-12

Local authority area	% increase
Basildon	65%
Braintree	62%
Brentwood	69%
Castle Point	65%
Chelmsford	67%
Colchester	67%
Epping Forest	67%
Harlow	65%
Maldon	70%
Rochford	68%
Tendring	70%
Uttlesford	66%
Essex	66%

Source: CLG Table 581 (mean house prices based on Land Registry data), PBA

Maldon

2.26 Although as we have seen Maldon district is included in the NHPAU's definition of the HMA, Maldon Council does not wish to join with the client authorities to make the larger HMA, and has provided evidence to its own plan examination to show that the district is a separate HMA.

2.27 To assess the implications of this stance on our commissioning authorities we have calculated the impact on the strategic HMA's containment of removing Maldon. This change makes little difference as set out in the tables below: migration containment decreases marginally to 70% (from 71%) and 69% (from 71%) for origin and destination. The corresponding figures for commuting containment are 73% (from 75%) and 83% (from 86%), still well above the HMA containment threshold.

2.28 This analysis shows that Maldon is marginal to the overall containment rates in the strategic HMA. Once any provision for long distance or lifestyle moves is made in the data the four Councils meet the self-containment threshold regardless of Maldon.

Table 2.4 Migration containment – strategic HMA excluding Maldon

Origin (moves from)	Destination (moves to)			
	the HMA minus Maldon	Elsewhere	Total trips from the HMA	**Origin containment**
the HMA minus Maldon	44,695	19,515	64,210	**70%**
Elsewhere	20,225			
Total moves to the HMA	64,920			
Destination containment	**69%**			

Source; ONS, PBA

Table 2.5 Commuting containment – strategic HMA excluding Maldon

Origin (trips from)	Destination (trips to)			
	the HMA minus Maldon	Elsewhere	Total trips from the HMA	**Origin containment**
the HMA minus Maldon	202,254	72,963	275,217	**73%**
Elsewhere	40,914			
Total trips to the HMA	243,168			
Destination containment	**83%**			

Source; ONS, PBA

2.29 In summary, for our client authorities, Maldon's position does not pose a problem. Our analysis has shown that according to the tests in the PPG they form an HMA without Maldon. Therefore the four authorities are free to identify their OAN without Maldon, in line with the NPPF and PPG.

Conclusion

2.30 Our analysis suggests that an HMA comprising Braintree, Colchester, Chelmsford and Tendring Council areas forms a sound basis for assessing housing need. The rest of this report focuses on this area, which we call simply 'the HMA'.

3 DEMOGRAPHIC PROJECTIONS

Introduction

3.1 National policy and guidance require that housing needs assessments start from the CLG household projections, which in turn are based on the ONS sub-national population projections. The CLG projection groups the projected population into households, applying a factor know as household formation rates (household representative rates, headship rates). The housing need calculation turns the projected numbers of households into numbers of dwellings, applying an adjustment for unoccupied dwellings (vacant and second homes).

3.2 In the 2015 report our demographic data and projections were taken from the *Greater Essex Demographic Forecasts* produced by Edge Analytics for the Essex Planning Officers' Association (EPOA). Specifically we used the Phase 7 of this study ('the Edge report') which, despite its title provides projections rather than forecasts. The Edge report stated that they were based on the 2012-based subnational population projections (SNPP) ('ONS 2012') and the 2012-based CLG household projection ('CLG 2012'), which were the latest official projections available at the time. It discussed those projections and sensitivity-tested them through a series of alternative scenarios.

3.3 As noted earlier the 2012 projections have since been superseded by 2014-based releases, ONS 2014 and CLG 2014. At the time of writing, the PPG has not yet been updated and still refers to the 2012 projections as the 'the most up-to-date estimate of future household growth'. Nevertheless, common sense suggests that housing needs assessments should now take account of the 2014 release.

3.4 However, EPOA has not commissioned a new Edge study to process the new official projections. In this update, therefore, we provide our own projection scenarios. These are produced by John Hollis's suite of demographic models, which are fully-fledged cohort progression models and mirror the methods and assumptions used in official projections – except of course for the alternative assumptions we are testing, as described later.

3.5 For Tendring district the official demographic projections are not robust, due to an error called Unattributable Population Change (the UPC). Because of the UPC, to provide a demographic starting point for Tendring we have had to use a different method to other local authority areas. Therefore in the next section we discuss Tendring on its own. The following section will deal with Braintree, Chelmsford and Colchester.

Tendring

UPC in general

What is UPC?

3.6 UPC is a discrepancy in the official population statistics that relates to population change between the 2001 and 2011 Censuses. In such inter-censal periods the ONS makes estimates of the components of population change, which are published as Mid-Year Population Estimates (MYEs). Births and deaths are measured easily and accurately, because the UK has an effective registration system. But migration (UK and international) cannot be measured directly, and is estimated from indirect and incomplete data such as GP registrations.

3.7 When the 2011 Census results were published, the population in many places was different from what had previously been estimated. ONS accordingly revised the MYEs for the inter-censal period to bring them into line with the Census. But for many places it proved impossible to fully reconcile the revised components of change with population numbers at the two Censuses. To deal with this remaining discrepancy, ONS introduced an additional component of change, in effect an 'errors and omissions' factor. This is the UPC.

3.8 The UPC may be due to miscounted population in one or both Censuses – though this is more likely to be in 2001 than 2011, because by 2011 methods had been considerably improved. It may also be due to unrecorded or misrecorded migration between the Censuses. More likely both factors are at work.

3.9 For England, the UPC amounts to 103,000 persons between 2001 and 2011. This modest number understates the size of the problem as it applies at local level, because 103,000 is the net outcome of positive UPC in some authorities and negative UPC in others.

3.10 Although the initial problem (or some of it) may have been in counting international migrants, further issues arise in relation to the correct assignment of these migrants to local authorities. Incorrect initial assignments are compounded when new immigrants to the UK change address and their move is picked up by the NHS and translated by ONS into its estimates of internal migration. Also new data, discussed below, suggests that the error was much wider in scope than originally thought. For some districts, including Tendring, the estimated data misrecorded both domestic and international migration.

ONS and the UPC

3.11 ONS decided in 2012 not to adjust its official projections to take account of the UPC. This means that the UPC is excluded from the past migration flows which the projections carry forward. Therefore the CLG household projections, which are

derived from SNPP, also exclude the UPC. An ONS Questions and Answer document[5] gives two reasons for the ONS's decision:

- UPC is unlikely to measure a bias that will continue in the future; and
- UPC would be methodologically difficult to adjust for, because it is unclear what proportions of the UPC are due to errors in the Census population counts as against errors in the migration estimates.

3.12 Although subsequent to the 2011 Census ONS improved its methods for estimating migration, we understand that it is now considering further improvements. We believe that it has a provisional plan to produce revised MYEs from 2011 onwards, using new methods derived from its research into national and international migration and the UPC.

3.13 This implies that current estimates of migration since 2011, as recorded in the MYEs, are not sacrosanct. The errors that caused the UPC between 2001 and 2011 may still be there. Where that is the case, the next Census will find again that the population is not what MYEs led us to expect, giving rise to a new UPC; and the current population projections, which are based on the current MYEs, will be misleading.

3.14 In summary, the ONS acknowledge that some of the errors that caused the UPC may still be occurring, and aims to correct these errors in future. The implication is that, until ONS does make these corrections, the official demographic projections for places where the UPC is large cannot be relied on. Tendring is one such place. Therefore we have created our own demographic scenario for Tendring, aiming to correct for the UPC so far as possible. We discuss this alternative scenario below.

The UPC and Tendring

3.15 As noted earlier, the SNPP, and hence the CLG household projections – which are derived from the SNPP – take no account of the UPC. For Tendring, this has enormous consequences.

3.16 For Tendring, the UPC in 2001-11 was negative at minus10,000 persons. The 2001 Census reported a population of 139,000 persons. Between the Censuses the MYEs showed the district's population growing by around 10,000 persons, an average of 1,000 a year. But the 2011 Census reported a near identical population to that in 2001 – also 139,000 persons. Thus, 10,000 additional persons whom the ONS expected to be living in the district in 2011 were not found when the 2011 Census counted the population.

3.17 For the future plan period 2013-37 the 2012-based official projections - rolling forward historical trends as measured by the MYEs, and hence taking no account of the UPC - implied housing need of 705 dpa. The Edge report produced alternative scenarios that did take account of the UPC – assuming that the UPC was due to the MYEs overestimating international immigration, as was generally believed at the time. The with-UPC scenario based on a five-year reference period – as does the SNPP -

[5] Office for National Statistics, *Questions and Answers: 2012-based Subnational Population Projections*, May 2014

showed housing need of only 280 dpa. Using a 10-year base period – which as we discuss later should iron out short-term fluctuations – produced housing need of 480 dpa.

3.18 The July 2015 OAN study adopted this latter number as its 'demographic starting point'. After a 'future jobs uplift' aiming to match population to labour demand (also discussed later in this report) the study produced an OAN of 597 dpa.

3.19 In September 2015 the ONS released new information on the UPC, comprising a report and a 'data tool' providing details for each local authority area[6] The Council appointed the leading demographer John Hollis to review this new information and draw the implications for housing need. The results of this review were published on the Council website in January 2016[7].

3.20 Hollis (who has since joined the team producing the present study) concluded that 479 dpa – which he rounded to 480 – was a reasonable view of trend-based housing demand in the area. His view was largely based on analysis of past housing completions, as explained in the 2016 review.

3.21 But, using the new ONS data, Hollis concluded that the UPC was not just due to overstated international immigration as Edge assumed. Rather, he estimated that the MYEs also mis-estimated international out-migration and domestic flows. In relation to older residents he also found a disconnect between places of residence and death records. Based on the above analysis, the Hollis review produced a new population scenario to match the OAN of 480 dpa. This showed similar population growth to SNPP 2012 but a younger age profile.

3.22 In the present study we accept this figure of 480 dpa, because the evidence that underpinned it has not changed. But John Hollis has produced a new population scenario to estimate the numbers and profile of residents that will result from delivery of 480 dpa, taking account of the latest MYEs and official projections. This update is at Appendix A below.

3.23 As regards total population, this Tendring scenario is virtually identical to the January 2016 Hollis update, SNPP 2012 and SNPP 2014 – which are also virtually identical to one another. As regards the age profile of that population the new 480 dpa projection is close to the January 2016 version, showing a younger profile than SNP 2012 and SNPP 2014 – which again are very close to each other.

Braintree, Chelmsford & Colchester

3.24 For Braintree, Chelmsford and Colchester, unlike Tendring, the official projections provide a reasonable starting point. Below, we summarise the 2014-based official projections and compare them with the 2012-based version used in the 2015 study,

[6] *Further understanding of the causes of discrepancies between rolled forward and census based local authority mid-year population estimates for 2011,* http://www.ons.gov.uk/ons/guide-method/method-quality/specific/population-and-migration/population-statistics-research-unit--psru-/latest-publications-from-the-population-statistics-research-unit/further-understanding-causes-discrepancies.pdf

[7] https://www.tendringdc.gov.uk/sites/default/files/documents/planning/Planning_Policy/Tendring%20Mix%20and%20tenure%20updated%20for%20new%20OAN%2024.3.16%20(2).pdf

looking first at population and then households. We then test the projections to see if they seem a reasonable reflection of past trends. More detail is at Appendix A.

The official projections

Population

3.25 Table 3.1 summarises the ONS 2012 and 2014 population projections. Across the three districts ONS 2014 shows the population growing from 502,000[8] in 2014 to 592,700 in 2037, an increase of 90,700. The greatest gain is in Colchester, at 39,400 persons. In Braintree and Chelmsford the population grows by 24,300 and 27,000 respectively. All these numbers are close to the ONS 2012 projection, especially the three-district total, which is within 1,000 of the 2012 projection.

3.26 The table also splits population change between its two components, natural change (the difference between births and deaths) and migration. Across the three districts net migration amounts to 58,400 people, almost two thirds of population growth; for Braintree the contribution of net migration to population change is as much as 89%.

3.27 The components of change, like total change, are very similar in the 2014 to the 2012 projection. Thus, for the three districts together ONS 2014 shows 2,112 more net migrants into the three districts over the 23 years 2014 to 2037. But against the total net migration flow of around 58,000 people this is a small difference.

3.28 Behind these insignificant differences there are two main factors, both relating to the national assumptions that inform ONS 2014, from which the CLG household projections are derived. Firstly, the ONS 2014 projection assumes more net international migration to the UK than the previous version, though this only impacts on Colchester and Chelmsford. Secondly, the new projections assume shorter life expectancies and hence higher mortality rates.

[8] Numbers quoted in the text are rounded.

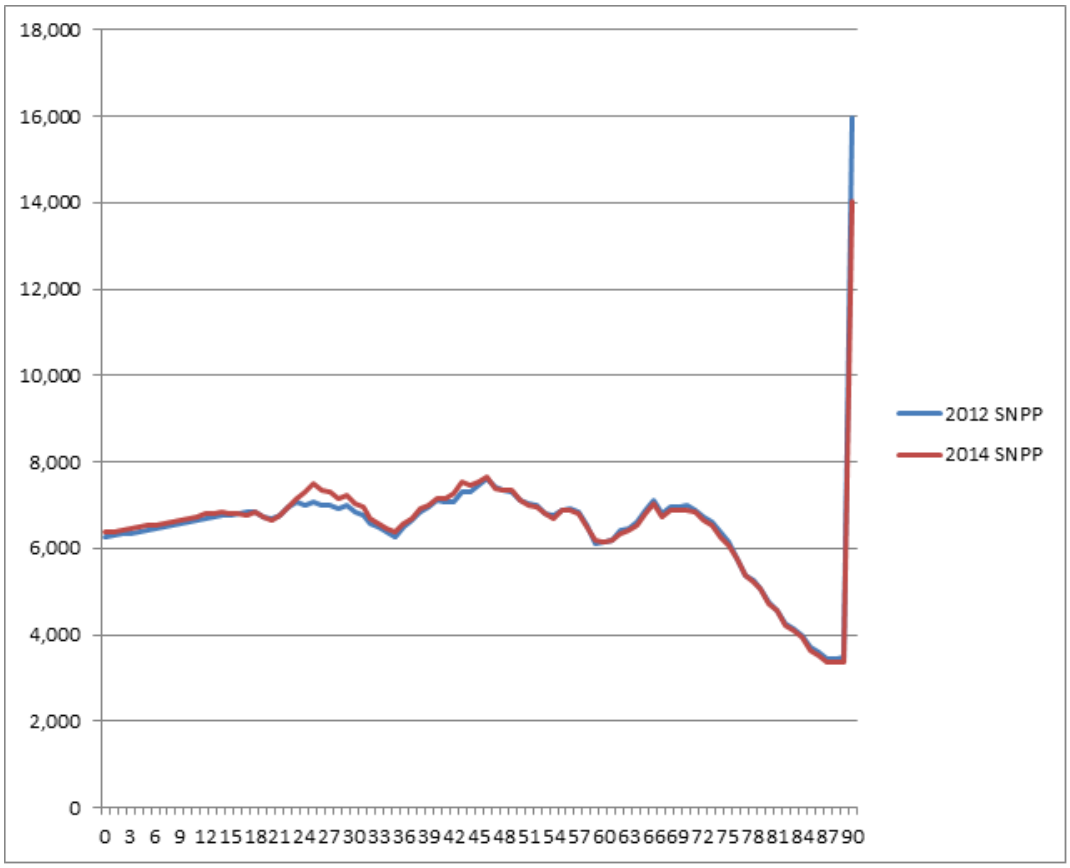
Table 3.1 Three districts: Population change by component, ONS 2012 and 2014 SNPP

		Braintree	Chelmsford	Colchester	Three districts
ONS 2012 SNPP					
2014	Population	150,679	171,274	179,825	501,778
2014-37	Births	40,479	45,374	54,686	140,539
	Deaths	36,479	34,511	36,031	107,021
	Natural Change	4,000	10,863	18,655	33,518
	Net Migration	22,898	14,701	18,714	56,313
	Total Change	26,899	25,564	37,369	89,832
2037	Population	177,578	196,838	217,194	591,610
ONS 2014 SNPP					
2014	Population	149,985	171,633	180,420	502,038
2014-37	Births	39,403	46,099	56,253	141,755
	Deaths	36,751	35,836	36,940	109,527
	Natural Change	2,652	10,263	19,313	32,228
	Net Migration	21,642	16,727	20,056	58,425
	Total Change	24,294	26,989	39,369	90,652
2037	Population	174,279	198,622	219,789	592,690

Source: ONS. In this table we focus on the period from 2014 onwards, because 2014 is the base of the latest projection.

3.29 These changes do not make a significant difference to the total population, partly because they are mutually offsetting. They do make a difference to the age profile of that population, as Figure 3.1 illustrates. Compared to the ONS 2012, ONS 2014 shows fewer very elderly people and more people in their 20s and early 30s. The fall in elderly people applies to all three districts and the increase in young adults to Chelmsford and Colchester only.

Figure 3.1 Three districts: age structure 2037, ONS 2012 and ONS 2014



Source: ONS

3.30 Overall, the ONS 2014 projections are very similar to the ONS 2012 projections. Their release does not identify that a meaningful change has occurred.

Households

3.31 In the CLG 2014 projection household numbers grow by 50,200 over the plan period, against 51,500 in the 2012 projection (Table 3.2).

Table 3.2: Three districts: Stage 1 household projections 2013-37. CLG 2012 and CLG 2014 projections, thousands

		Braintree	Chelmsford	Colchester	Three districts
Thousands of households					
2013	2012 SNPP	62.6	71.0	73.6	207.1
	2014 SNPP	62.4	71.0	73.6	206.9
2037	2012 SNPP	78.6	86.4	93.6	258.6
	2014 SNPP	76.9	86.7	93.5	257.1
2013-37	2012 SNPP	16.0	15.4	20.0	51.5
	2014 SNPP	14.5	15.7	19.9	50.2
	Difference	-1.5	0.3	-0.1	-1.3

Source: CLG

3.32 This reduction is due to the shift in age profile mentioned earlier, with fewer old people (who have relatively high household representative rates) and more young people (who have lower rates). The largest reduction is in Braintree (1,500 fewer households over the period). Colchester loses just 100 households over the period and Chelmsford gains 300 households. Considered in relation to the HMA as a whole, the differences between the projections are remarkably small.

3.33 The above figures are part of the CLG 'Stage 1' projection, which rolls forward long-term trends in household formation since 1971, producing total household numbers by age, sex and marital status of the household representative. Additionally CLG provides a 'Stage 2' projection, which splits the Stage 1 households into detailed types. The 2014-based Stage 2 projection is shown at Table 3.3.

Table 3.3: Three districts: Stage 2 household projections 2013-37. CLG 2014

	Household types	Braintree	Chelmsford	Colchester	Three districts
2013	One Male	7,637	8,936	9,818	26,391
	One Female	9,397	10,621	11,730	31,748
	Couple - No Others	18,189	20,800	20,388	59,377
	Couple - Other Adults - No DC	4,929	5,834	5,125	15,888
	Hhold with 1 DC	8,327	8,810	9,809	26,946
	Hhold with 2 DC	7,694	8,700	8,473	24,867
	Hhold with 3 DC	2,865	3,005	3,036	8,906
	Other	3,330	4,259	5,213	12,802
	Total	62,368	70,964	73,593	206,925
2037	One Male	10,996	12,544	14,066	37,606
	One Female	11,304	11,289	13,946	36,539
	Couple - No Others	22,546	25,271	23,359	71,176
	Couple - Other Adults - No DC	5,780	7,006	5,977	18,763
	Hhold with 1 DC	10,442	11,755	14,984	37,181
	Hhold with 2 DC	7,973	9,810	10,545	28,328
	Hhold with 3 DC	2,664	2,712	2,660	8,036
	Other	5,202	6,315	7,988	19,505
	Total	76,907	86,703	93,525	257,135
2013-37	One Male	3,359	3,608	4,248	11,215
	One Female	1,907	668	2,216	4,791
	Couple - No Others	4,357	4,471	2,971	11,799
	Couple - Other Adults - No DC	851	1,172	852	2,875
	Hhold with 1 DC	2,115	2,945	5,175	10,235
	Hhold with 2 DC	279	1,110	2,072	3,461
	Hhold with 3 DC	-201	-293	-376	-870
	Other	1,872	2,056	2,775	6,703
	Total	14,539	15,739	19,932	50,210

Source: CLG. DC stands for dependent children.

3.34 Across the three districts the largest part of the increase in household numbers is for one-person households, which are projected to rise by around 16,000 across the three districts. The second largest growth is for couples living alone (i.e. without other adults or dependent children), at nearly 12,000. Households with one dependent child are expected to increase by over 10,000 thousand, of which over 5,000 are in Colchester. Couples with other adults but no dependent children are invariably families with their own non-dependent children still living with them. 'Other' households are two or more unrelated adults not living as a family.

3.35 The Stage 2 projections have important limitations, due to the method used to produce them. Firstly, the Stage 2 figures are controlled to the total number of households produced at Stage 1. Therefore the Stage 2 projection does not tell us anything about the total number of homes needed; it only tells us about the mix of household that may occupy these homes.

3.36 A second limitation of the Stage 2 projection is that the base period whose trends it rolls forward is short. While the 2014-based Stage 1 projection that produces total household numbers is based on a 43-year trend period, from 1971 onwards, the Stage 2 projection is based on 2001-11 - projecting the trend in household formation rates from just two data points, the Censuses. In this recent 10-year period formation rates for younger age groups against older ones, partly due to the increased difficulty experience by young people in accessing housing.

3.37 In summary, the Stage 2 projection tells us nothing about total numbers of households, only the mix, or profile, of households and housing representative persons (heads of household). And with regard to this mix Stage 2 is not consistent with Stage 1, because it projects a different historical period.

Testing the projections

3.38 In line with the PPG, housing assessment studies should test the official demographic projections to see if they seem a reasonable reflection of underlying trends. For this we use two different methods. Firstly, in the next section we look at the household formation rates used in the projections, Secondly, in the following section we will create alternative scenarios based on different historical periods.

Household formation rates

England

3.39 Household formation rates (household representative rates, HRRs, headship rates) as noted earlier are the factor that turns population into household numbers. The formation rate is the proportion of people who are household representatives (formerly known as heads of household). Since each household has one representative and only one, the number of these representatives equals the number of households. For the household population as a whole the formation rate is the inverse of average household size – so that, for a given population, higher formation rates mean more households and a greater housing need.

3.40 In the July 2015 report we used the household headship rates shown in the CLG 2012 household projection. This was the first set of rates to be informed by the

results of the 2011 Census. The Census found that formation rates across England were considerably lower than predicted the previous full CLG official projection, CLG 2008 (2011-based projections were published in between but were badged 'interim'). Accordingly CLG showed lower rates for the future than CLG 2008, especially for younger age groups. The CLG 2014 projections show almost identical formation rates, because they have been produced by the same method, projecting trends since 1971; the update from 2012 to a 2014 base year makes little difference to the result, because it adds just two points to this long series of historical data.

3.41 Since the 2015 OAN study some parties have challenged our use of the 2012-based headship rates as being too low. They claimed that the 2012-based projection locked in a short-term downturn in formation rates that in reality were a short-term effect of the recession, so that household formation in the long term will return towards the higher rates projected in 2008, either fully or partially.

3.42 Independent academic experts[9] have used the latest ONS data to research why the 2012 are lower, and whether they carry forward the short-term impact of the recession. Their research suggests that this is not the case, and the 2012 rates remain fit for purpose. It identifies three main reasons why the 2008 rates are no longer relevant, if indeed they ever were.

3.43 Firstly, the 2008 rates even at the time they were produced were not a correct projection of past trends. Simpson and McDonald note:

'It is no longer sensible to appeal to previous household projections including the 2008- based set as if they were evidence of an underlying trend in household formation. They were produced at a time when household formation had already changed, starting before the economic downturn of the mid-to-late 2000s, and are in themselves only evidence of the optimism of that period.'

3.44 Secondly, more people in the young adult age groups live in couples than in the past. This fact reduces younger age HRRs across the board, because each household has only one representative (head). McDonald and Whitehead (November 2015) estimate nationally that this lifestyle change accounts for 20% of the difference between the 2012 and 2008 projections. It is unlikely to reverse in future, has nothing to do with housing market pressures and is in no way undesirable.

3.45 Thirdly, there is a collection of socio-economic factors that are reducing the ability of younger households to form separate households. These factors affect housing demand rather than supply, and hence cannot be altered by planning policy. They include more precarious employment, reducing welfare benefits and rising student debt. Due to the rapid expansion of higher education, coupled with sweeping changes to higher education funding, many more young people are loaded with student debt, so they are unable or unwilling to take on mortgages until later in life. McDonald and Whitehead add that the impacts of these factors are not fully reflected in the 2011

[9] L Simpson, *Whither household projections?* in *Town and Country Planning,* December 2014, Vol 83; L Simpson and N McDonald, in *Town and Country Planning,* April 2015*;* N McDonald and C Whitehead, *New estimates of housing requirements in England, 2012 to 2037, T*own & Country Planning Tomorrow Series Paper 17, November 2015

Census or the 2012-based household projections, and they are likely to reduce household formation rates further.

3.46 In conclusion, McDonald and Whitehead find that the CLG 2012 household formation rates remain fit for purpose:

'*We would suggest that the 2012-based household formation rate projections form a reasonable basis for purposes such as planning for housing. This is because, although economic growth might be expected to increase the household formation rate, there are both longer-term structural changes and other factors still in the pipeline (such as welfare reforms) that could offset any such increase.'*

3.47 To sum up, authoritative studies have found that there is no justification for a national adjustment to the CLG 2012 formation rates to compensate for the impact of the recession. Logically the same applies to the CLG 2014 rates, because as mentioned earlier they are very similar and were derived by the same method.

3.48 But we also need to consider whether there is a case for local adjustments, to correct for local factors. This is discussed in the next section.

Local household formation rates

3.49 In this section we compare projected formation rates in the HMA with national averages. If rates in the HMA were lower than these averages, this could constitute evidence that the projections carry forward the impact of a local supply shortage – although such evidence is difficult to read, because local differences in formation rates depend on many factors unrelated to the housing market or specifically to housing supply.

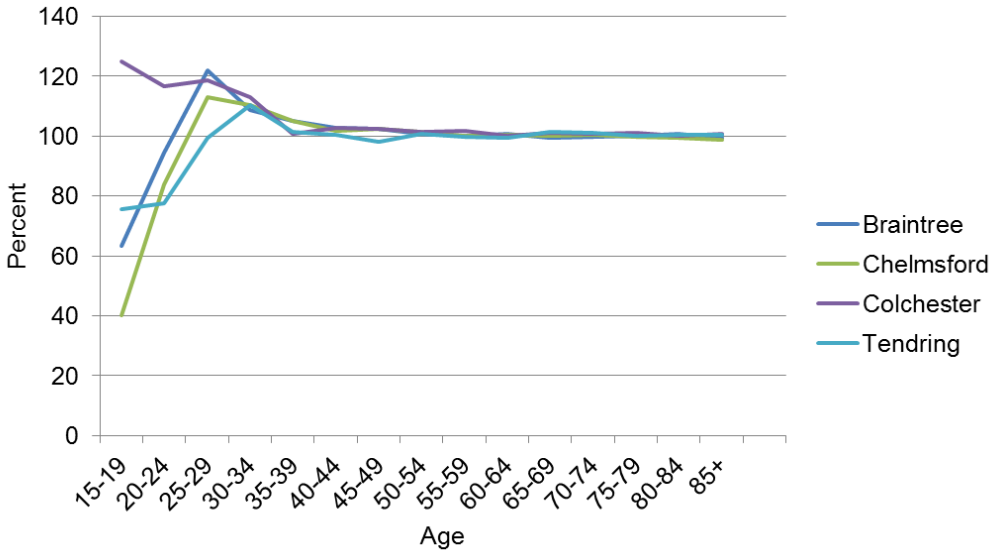
3.50 To see if there is evidence of local supply shortages we examine the 2031 formation rates shown in the CLG 2012 projection, comparing the districts in the HMA with national benchmarks. A comparison based on CLG 2014 would show the same results, because formation rates remained virtually unchanged between the two projections, for our HMA as well as England. Although Tendring is generally excluded from our discussion of the official projections, we do include it in this analysis of formation rates. That is because the distortions that make the official projections or Tendring unusable relate to population only, not household formation.

3.51 The charts below show formation rates at 2031 in the HMA by age, as a percentage of the England averages. In the present context we are interested in young adults aged 25-34. These are the ages when people generally form their own households, and hence the groups where variations in formation rates are most likely to reflect economic and housing market factors. At other ages other factors dominate. In relation to older age groups, for example, formation rates go down as male life expectancy increases, because where there are more older men there are more couples and fewer widows.

3.52 Also we are mainly interested in male formation rates, because by statistical convention if a household contains adult males the oldest (or only) such male is the household representative person (head of household). Therefore male household

formation rates are much higher than female ones, and have a much greater impact on total household numbers and hence housing need.

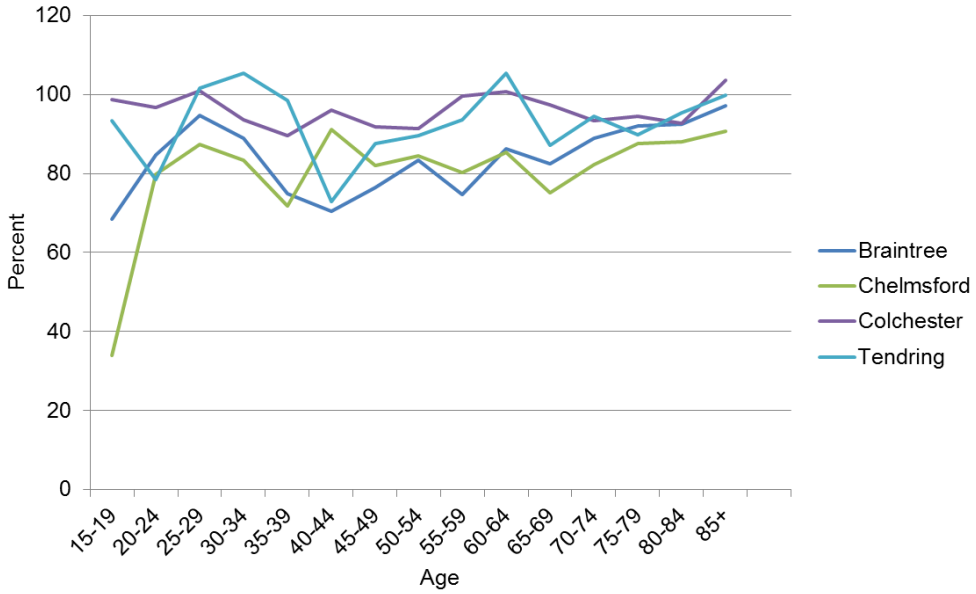
Figure 3.2 Four districts: Projected male headship rates in the HMA as % of England, 2031



Source: CLG 2012

3.53 For males, in the key age groups 25-29 and 30-34 all the projected formation rates in the HMA are above the England average – with the very slight exception of the 25-29 rate group in Tendring, which undershoots the national average by less than one percentage point.

Figure 3.3 Projected female formation rates as % of England, 2031



Source: CLG 210

3.54 For females, formation rates in the HMA are below the national average, for nearly all age groups in nearly all local authority areas in the HMA. The likely reason for this is that a higher proportion of females in the HMA than England are cohabiting in a

heterosexual couple. Compared to England the HMA contains proportionally many family households (which includes couples, with or without children) and fewer single people. For example, at the Census the proportion of all households classed as 'family households' was 67.5% for Braintree and 67.2% for Chelmsford, against 61.8% for England. The exception to this is Tendring, but here the age profile is very different to the wider HMA; being much older. A cohabiting female cannot, by convention in the CLG household projection method, represent the household. Therefore, the more people live in families proportionally fewer women will be heads of households.

3.55 In summary, there is no evidence that household formation rates anywhere in the HMA are suppressed by a local undersupply of housing.

3.56 Our analysis confirms that in assessing the HMA's housing needs it is right to use the household formation rates shown in the 2012 or 2014 CLG projections – which are virtually identical:

- At national level, the 2012 projection is supported by the PPG as '*the most up-to-date estimate of future household growth',* and authoritative research has refuted the view that its rates lock in the temporary impact of the recession.
- At local level, our analysis of projected formation rates in the area has found no evidence to suggest that housing formation in the HMA is being suppressed by an undersupply of housing.

Alternative demographic scenarios

The three-district total

3.57 As mentioned earlier, before being accepted as a measure of housing need the official projections should be tested, to see if they if they are unduly influenced by short-term factors or modelling anomalies. This is usually done through alternative scenarios which vary some of the methods and assumptions used by ONS/CLG. For present purposes these Edge scenarios are out of date. Therefore we have created two new alternative projection scenarios, called PBA Trends 2005-15 and PBA Trends 2010-15.

3.58 Both our alternative scenarios are based on the ONS 2015 MYE. But they are based on different reference periods: as their names indicate, Trends 05-15 carries forward migration trends from a 10-year period and Trends 2010-15 from a five-year period.

3.59 Table 3.4 summarises the results of the Trends scenarios and compares them to the 2012 and 2014 official projections. For reference the table also shows the 2008-based official projections, which were much higher and are now out of date. To translate households into dwellings we have used the ratio of occupied household spaces to all household spaces from the 2011 Census.

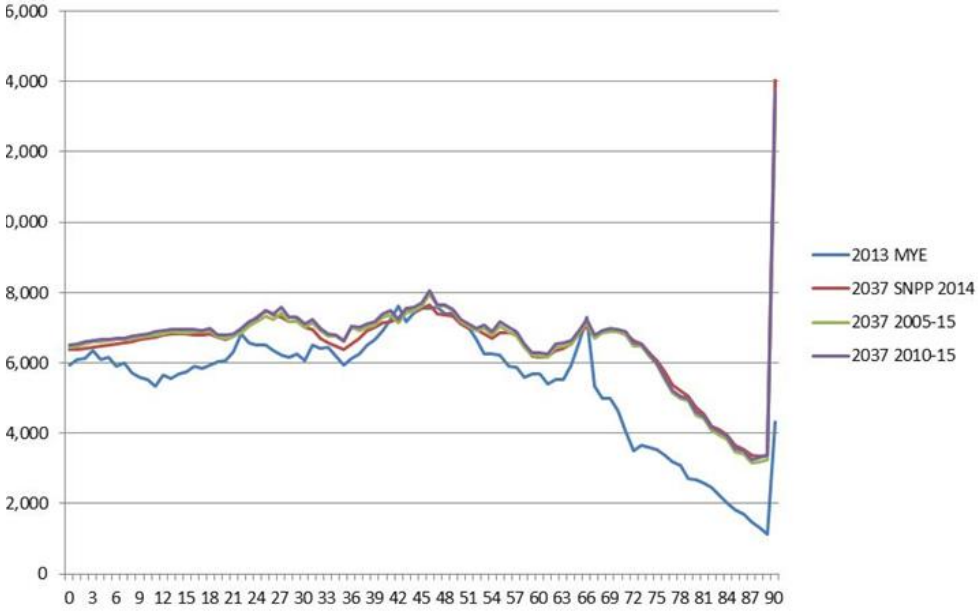
Table 3.4: Three districts: Projections to 2037 compared (thousands except pa figures)

	ONS/CLG 2008	ONS/CLG 2012	ONS/CLG 2014	Trends 2005-15	Trends 2010-15
Population					
2001	446				
2011	503	490	490	490	490
2013	517	498	497	497	497
2016	537	510	511	511	511
2021	570	532	532	531	533
2026	601	553	553	552	555
2031	629	571	572	571	577
2037		592	593	594	602
2001-11	57	44	44	44	44
2013-37		94	96	97	105
p.a.		3,917	3,988	4,033	4,369
Households					
2001	183				
2011	211	203	203	203	203
2013	219	207	207	207	207
2016	229	214	214	214	214
2021	247	226	225	225	226
2026	264	237	236	234	236
2031	279	247	246	244	248
2037		259	257	257	261
2001-11	28	20	20	20	20
2013-37		51	50	50	54
p.a.		2,144	2,092	2,070	2,254
Homes					
2001-11	29	20	20	20	20
2013-37		53	52	51	56
p.a.		2,214	2,160	2,143	2,334

Source: ONS, CLG, PBA

3.60 All projections show increases between 2013 and 2037 in the population at virtually all ages. The most significant changes are the very large increases projected at all ages from the late 60s onwards.

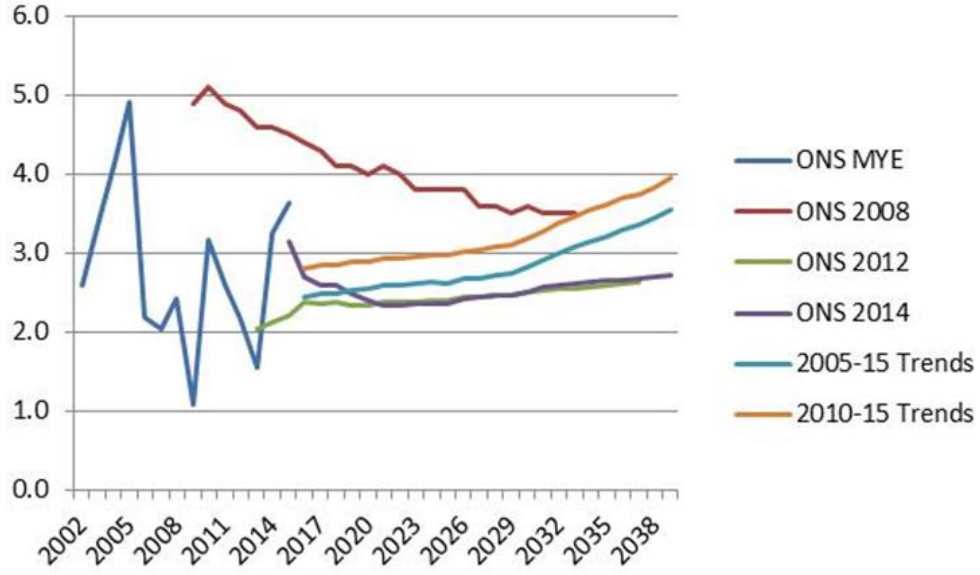
Figure 3.5: Three districts: age profile: 2013 and 2037,



Source: ONS, PBA

3.61 In terms of both population and households, Trends 2005-15 shows less growth than Trends 2010-15. This reflects the time profile of past net migration, which was lower in 2005-10 than the next 10 years (Figure 3.6). The 2012 and 2014 official projections are virtually identical to each other as noted earlier, and also very close to Trends 2005-15. This seems surprising; we would expect the official projections to be closer to Trends 2010-15, because they are both based on five-year reference periods, which overlap by four years. This apparent anomaly is attributable to Chelmsford, as we discuss later.

Figure 3.4 Three districts: net migration



Source: ONS, PBA

3.62 On the whole, however, for the three districts in aggregate the difference between scenarios are small. Once translated into housing need CLG 2012, CLG 2014 and Trends 2005-10 show very similar numbers – 2,214 dpa, 2,160 dpa and 2,143 dpa

respectively. For the three districts together, we conclude that CLG 2014 provides a robust demographic starting point for the housing needs calculation.

Individual districts

3.63 However, when it comes to the distribution of housing need between districts the different projections give quite different answers. Both PBA Trends scenarios put more people, households and homes in Colchester, and fewer in the other districts, than the official projections. The reason is that future migration to Colchester is much higher in the Trends scenarios than the ONS ones, as shown in Figure 3.5 below.

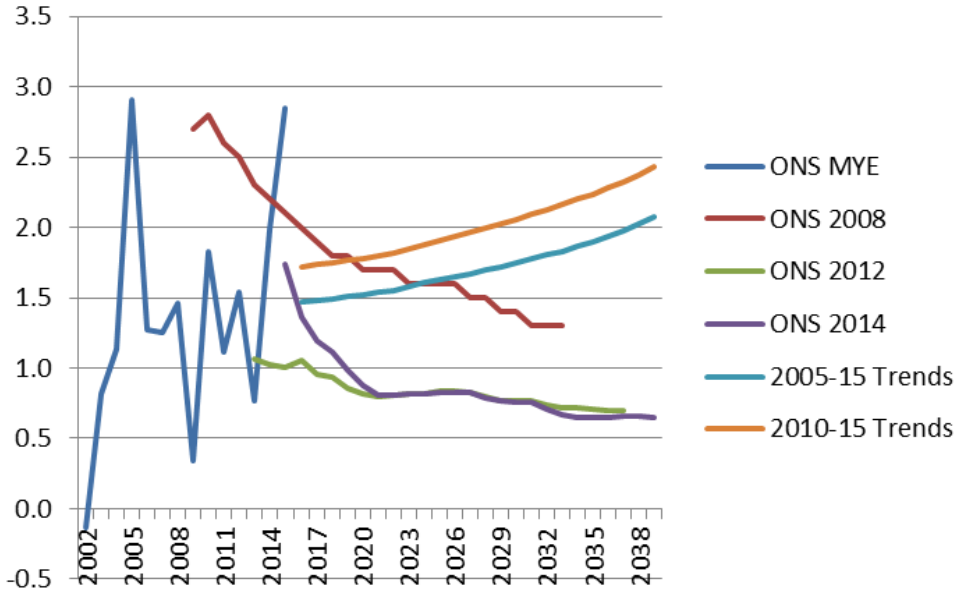
Table 3.5 net new dwellings per annum 2013-37, CLG 2014 and Trends 2005-15 compared

Dwelings p.a.	CLG 2014	Trends 2005-15
Braintree	623	507
Chelmsford	671	429
Colchester	866	1,207
Three districts	2,160	2,143

Source: CLG, PBA

3.64 Part of the explanation for this is UPC – which, as discussed in the 2015 OAN report, may lead to the official projections being underestimated. But the report showed that this had a small impact on the projections. Another reason why the Trends projections are above the official ones is that their base period includes the very high migration recorded in 2015, which is not part of the base period for the official projections.

Figure 3.5: Colchester net migration



Source: ONS, PBA

3.65 Even so, given historical levels of migration the future levels projected by ONS for Colchester seem too low, pointing to a possible anomaly in the modelling.

3.66 There is much uncertainly around demographic projections, especially for areas as small as individual local authorities, and where migration has fluctuated so widely from year to year. Therefore we cannot be sure of the comparative merits of the different scenario. But in our opinion the Trends scenarios are likely to be a better reflection of recent trends than the official projection, because of this apparent anomaly in its modelling.

3.67 However, the Trends scenarios may not give the best indication of the geographical distribution of demand. That is because the past trends they carry forward were partly a reflection of constrained supply.

3.68 As discussed in Chapter 6 below, in the base period of the projections Chelmsford and Braintree saw sharp falls in housebuilding. In Chelmsford key sites were delayed in coming forward, and in Braintree land supply was restricted by a much reduced housing target, with reduced allocations to match. By contrast, Colchester saw land supply and housing delivery were above past levels, which may have absorbed much of the demand displaced from Braintree and Colchester. This view is supported by HMA-wide market signals, which do not suggest that supply fell short of demand in the HMA as a whole.

3.69 Looking ahead to the plan period, in which supply constraints should be resolved by new allocations, we would expect growth to be redistributed from Colchester towards Braintree and Chelmsford. Therefore we conclude that the CLG 2014 projection shows a more realistic distribution of new homes for the future – albeit the technical details behind that projection are unclear.

Summary

3.70 In line with the PPG, our housing needs assessment starts from official demographic projections – comprising the ONS SNPP and the CLG household projection that groups that population into households. We have considered the latest official projections, based on 2014, and found that for the plan period 2013-37 they do not differ significantly from the 2012-based projections we used in the 2015 OAN study.

3.71 In this chapter we tested the official demographic projections to determine if they provided a reasonable reflection of past demographic trends. We found that Tendring was very different from the other three districts in the HMA, due to an error in official statistics known as UPC.

Tendring

3.72 Our analysis of Tendring, presented in the 2015 OAN study and the update published by the Council in January 2016, demonstrated that the official demographic projections were so severely distorted by the UPC that they provided no useful evidence on housing need. Accordingly the Council commissioned John Hollis to review the evidence and produce a new demographic starting point for the OAN calculation. The Hollis review, published in January 2016, recommended a figure of

480 dpa, based on the earlier Phase 7 Edge report together with analysis of historical housing delivery.

3.73 In the present update we carry over the 'demographic starting point' housing need of 480 dpa for Tendring, because the evidence that underpinned that figure has not changed. We also provide an updated population scenario to match this number of dwellings, which shows a larger and younger population than predicted by the official projections.

Braintree, Chelmsford and Colchester

3.74 For Braintree, Chelmsford and Colchester our analysis concludes that the CLG 2014 household projections provide a reasonable 'demographic starting point' for the housing needs assessment. For the plan period these figures show:

- 623 dpa for Braintree
- 656 dpa for Chelmsford
- 866 dpa for Colchester
- 2,145 dpa for the three districts in aggregate.

3.75 The aggregate figure is the most stable and therefore the most reliable. The distribution of this total demand between districts is difficult to determine, because the districts are closed and similar, so many people are prepared to shift between them in response to the available supply.

4 LONDON'S HOUSING NEED

4.1 As is widely known, the Further Alterations to the London Plan (FALP), adopted on 10 March 2015, recognise that London's land supply falls short of its projected housing need. For related authorities, which include our HMA, this means that additional new homes may be required to help accommodate this cross-boundary unmet need. Accordingly, in this this chapter we explore the potential implications for the HMA of the new London Plan.

4.2 The chapter is based on the Phase 7 Edge report. Its content is identical to the 2015 report, because the analysis it summarises has not been updated.

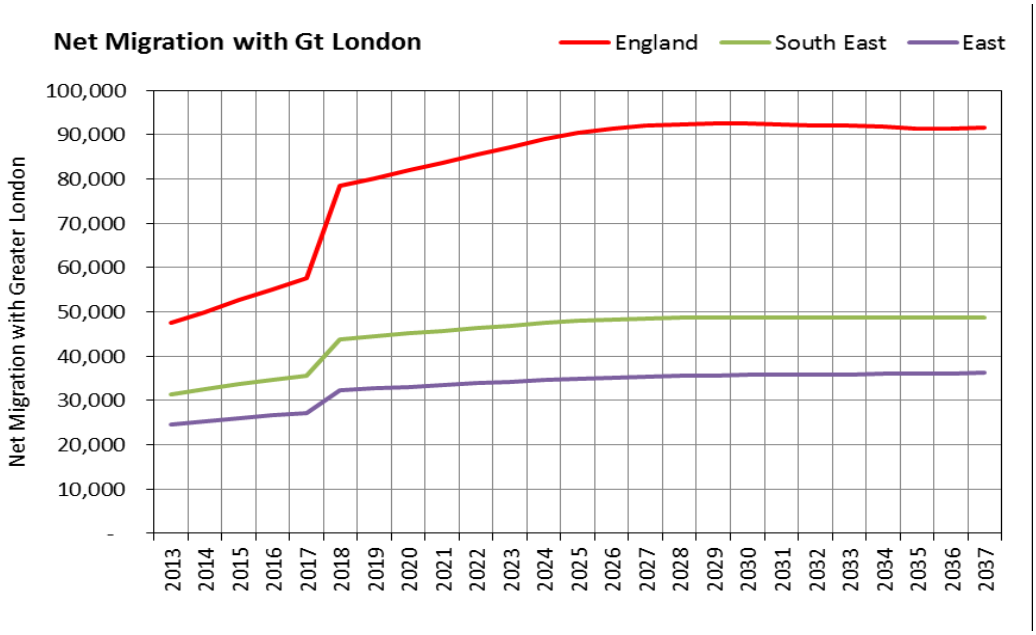
The GLA demographic scenario

4.3 In evidence supporting the FALP, the GLA criticised the 2011-based official demographic projections for London. It maintained the projections understated out-migration from London, and hence overstated London's own housing need, because the reference period on which they were based included the last recession; and in that recession domestic out-migration from London fell steeply – from a net 70-80,000 per annum before 2008 to 32,000 in 2009.

4.4 The GLA maintained that in better economic times net out-migration would revert to its high pre-recession levels, and so fewer homes would be needed in London than the official projections implied. It followed of course that more homes would be needed outside London. For our HMA this is a key issue, because it is linked to London by large migration flows.

4.5 Accordingly the GLA in 2013 produced an alternative set of demographic projections, to assess the long-term implications of its analysis for population in London and elsewhere. These projections comprised four alternative scenarios, all of which showed lower population for London, and higher population elsewhere, than ONS 2012. Edge Analytics worked with the GLA, using unpublished outputs from the GLA model, to analyse the implications for its study area of one of these alternatives, the Central Scenario. Figure 4.1 shows the resulting migration flows from London to the rest of England, the South East region and the East of England.

Figure 4.1 Net migration from Greater London, GLA Central Scenario



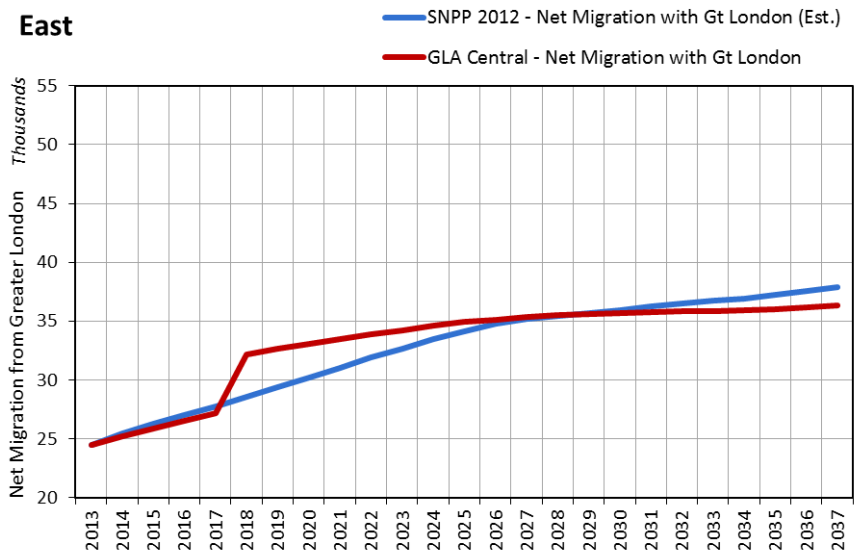
Source: Edge, op cit

4.6 The GLA Central Scenario shows net out-migration from London to the rest of England rising from some 48,000 persons in 2013 to 78,000 in 2018 and 91,000 in 2037. From London to the East of England region the uplift is much subdued: from 2013 to 2037 net out- migration from London to the region only increases from 28,000 to 37,000. The trend for the South East region is similar. The explanation is that in the Central Scenario much of London's out-migration spreads out over long distances, away from the regions that adjoin the capital.

4.7 Part of the reason could be that the East and South East regions were better insulated from the recession than England as a whole. If so, the recovery may also be felt less sharply in these southern regions; while further from London the upturn in job opportunities may be steeper, encouraging more out-migrants from the capital to make long-distance moves.

4.8 In any case, the GLA's Central Scenario is not alone in predicting growing migration from London to the East of England. The ONS 2012 shows a very similar future, as shown in Figure 4.2, which compares the two scenarios. The GLA scenario shows steeper growth up till 2026, but by 2026 the SNPP has caught up and for later years the SNPP shows slightly more migration than the Central Scenario.

Figure 4.2 Net migration from London to the East of England, thousands



Source: Edge, GLA Intelligence Unit

4.9 This suggests that for the East of England as a whole the ONS 2012 projections would require little or no adjustment to deal with London's needs. In the next section we examine whether the same applies to our HMA.

Impact on the HMA

4.10 The Central Scenario provided by the GLA is not broken down by local authority. Edge Analytics have estimated this breakdown as part of their Phase 7 report, apportioning the region's migration to authorities in proportion to past flows. Results are shown in the table below and should be treated with caution.

Table 4.1 SNPP 2012 & GLA Central Scenario compared

	Net migration, pesons p.a. 2013-37			Net new dwellings p.a. 2013-37		
	SNPP 2012	GLA Central Scenario	Difference	SNPP 2012	GLA Central Scenario	Difference
Braintree	985	1,004	19	686	698	12
Chelmsford	628	636	8	657	671	14
Colchester	822	916	94	868	913	45
Tendring	1,737	1,718	-19	705	698	-7
HMA	4,172	4,274	102	2,916	2,980	64

Source: Edge, GLA Intelligence Unit

4.11 The two scenarios are extremely close. Net annual migration is 4,274 in the GLA Central Scenario against 4,172 in ONS 2012. Projected annual housing need is 2,980 dpa in the Central Scenario and 2,916 dpa in ONS 2012.

4.12 For Tendring the London scenario has not be re-run to reflect the new, UPC-adjusted, demographic projection. But as can be seen below, the London adjustment for Tending was actually negative and reduced the baseline projection. The testing concluded that Tendring was poorly related to London and was unlikely to attract any trend based increased migration flowing from London.

Conclusions

4.13 The GLA considers that demand for out-migration from London will exceed the official demographic projections, because those projections bear the imprint of the last recession, in which migration was suppressed.

4.14 Accordingly the GLA has built an alternative projection in which more people move out of London, so housing need in the capital is less than in the official projections, and conversely housing need outside the capital is greater. But in this scenario the places that receive additional migration from London do not include our HMA.

4.15 The HMA's housing need, as estimated from the GLA scenario, exceeds the housing need derived from the CLG 2012 projection by just 74 dpa. Therefore, if we accepted that the GLA's view of the future was correct it would justify only an insignificant uplift to HMA's housing need.

5 PAST PROVISION AND MARKET SIGNALS

Introduction

5.1 The PPG at paragraph 015 advises that housing needs assessment should test starting point demographic projections against the evidence of past provision and market signals. If that evidence shows that that housing land has been undersupplied in the past against demand and need, then the starting point projections will understate that need and should be adjusted upwards. At paragraph 19 the Guidance lists a series of market signals, or indicators, that should be use to gauge the balance of demand and supply.

5.2 Below, we first consider the evidence for the HMA as a whole and then look at individual districts in more detail. In relation to each area we first look at the history of housing delivery, to see if there is evidence that in the base period of the projections restrictive planning has constrained land supply and hence housing development. We then look at market signals, beginning with house prices, affordability and market rents and then overcrowding and concealed families.

5.3 As discussed in Chapter 3 above, in arriving at a demographic starting point we considered two alternative projections: the official projections, whose period is 2009-14, and PBA Trends 05-15, which as its name indicates is based on 2005-15. In interpreting market signals we focus on these two periods, which we interpret in the context of longer-term trends.

5.4 The PPG also advises that market signals should be compared with areas that are similar:

'Appropriate comparisons of indicators should be made. This includes comparison with longer term trends (both in absolute levels and rates of change) in the: housing market area; similar demographic and economic areas; and nationally'[10]

5.5 ONS publishes Area Classification[11] based socio-economic and demographic data from the 2011 Census. Area classification aims to identify local authorities which are similar. To this end, the local authorities identified in the Area Classification share similar characteristics. The Area Classification identifies the following similar authorities:

- Braintree: Tonbridge and Malling, South Gloucestershire, East Hertfordshire
- Chelmsford: Eastleigh, Tonbridge and Malling, South Gloucestershire
- Colchester: Worcester, Chelmsford, Leeds
- Tendring: Rother, Waveney, North Norfolk.

[10] Reference ID: 2a-020-20140306

[11] https://www.ons.gov.uk/methodology/geography/geographicalproducts/areaclassifications/2011areaclassifications/abouttheareaclassifications

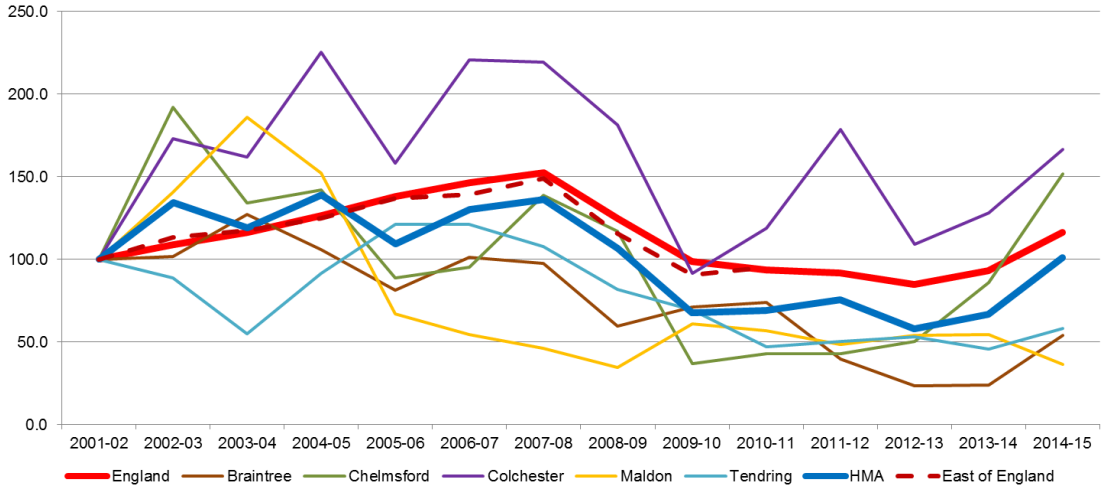
The HMA

Housing development

5.6 Figure 5.1 compares housebuilding rates for the individual districts within the HMA and the four HMA districts combined with average rates for the East of England and for England starting in 2001.

5.7 In the first few years the four districts in the HMA[12] tracked the rate of national housing delivery. It also tracked the region. But, from 2004-5 onwards the HMA has consistently lagged behind the region and England. Only Colchester of the four districts has consistently outperformed regional and national averages.

Figure 5.1 Housing completions in the HMA indexed, 2001=100



Source: Local authority AMRs and CLG[13]

5.8 Figure 5.2 below shows housing completions in the HMA from 1996/7 onwards. It shows that, although the rate of completions was slower in the HMA than the national average housing targets were generally being met or exceeded until 2009-10 when the financial crisis curtailed completion rates. This does not mean that demand or need was being met; strategic planning policy at that time aimed to direct housing growth to other areas, including the urban areas (brownfield land) and also the growth areas such as Milton Keynes & South Midlands and the Thames Gateway.

5.9 The chart shows both the former Structure Plan targets and the RSS. The Structure Plan was expected to run until 2011, but as a strategic planning document was replaced by the RSS in the late 2000s. At this point the RSS became the primary strategic planning document.

[12] Braintree, Chelmsford, Colchester & Tendring

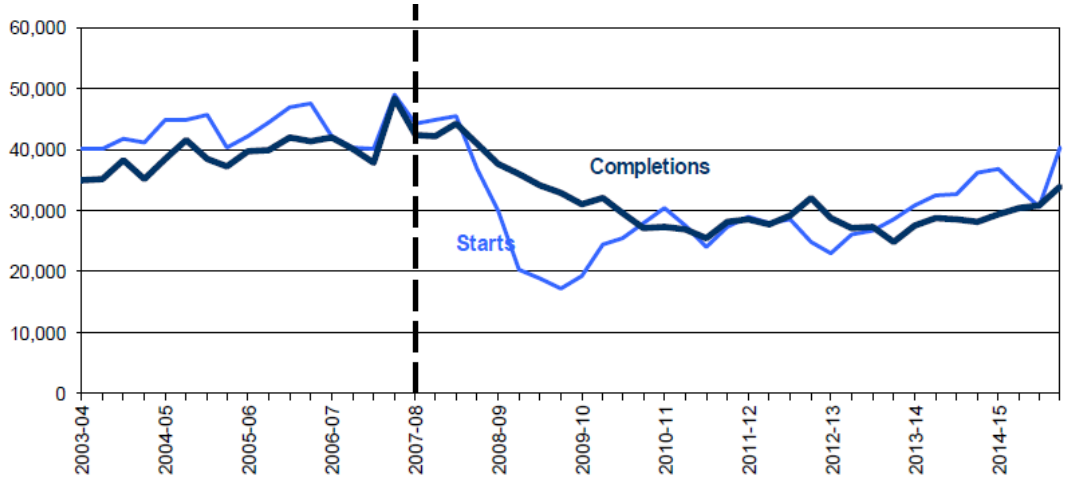
[13] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/475832/Net_Supply_of_Housing_England_2014-15.pdf

Figure 5.2 HMA Completions compared to targets

Source: Local authority AMRs

5.10 From 2009/10 onwards the HMA fell substantially behind its planning targets. There are at least two possible reasons for this. Most obviously the recession, which almost halved the national rate of housing delivery as shown in the chart below, reducing the effective demand for housing and the viability of development sites.

Figure 5.3 England housing starts and completions



Source: CLG[14]

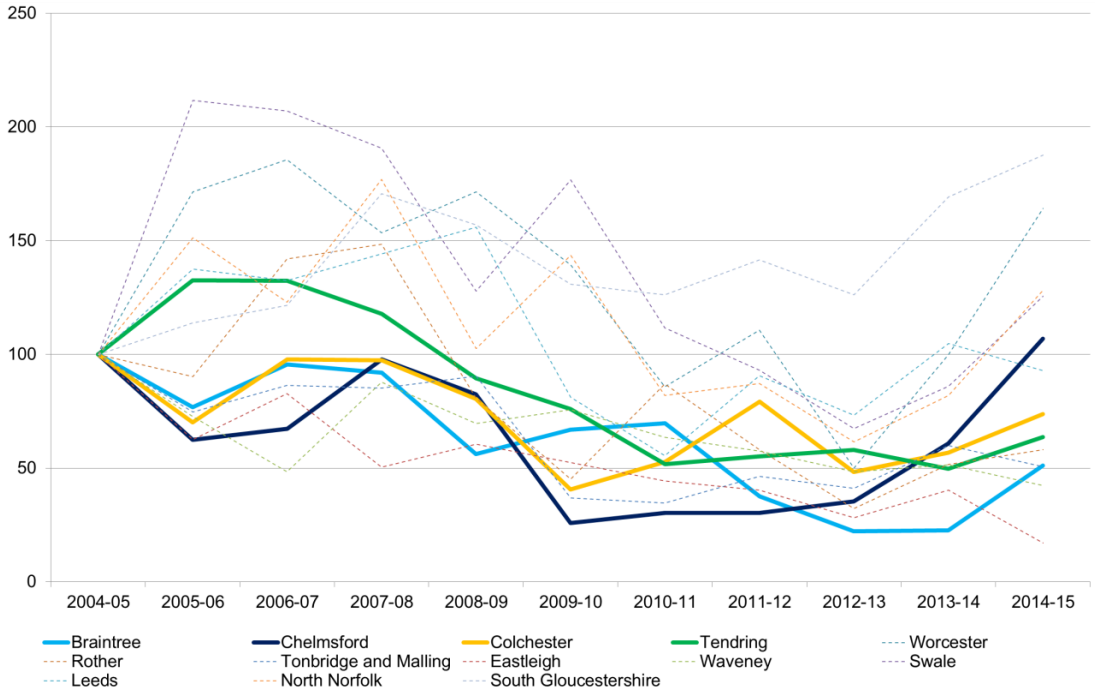
5.11 The second was that in Essex, the planning system was transitioning from the former Structure Plan to the new RSS. This caused a period of uncertainty in land supply across the HMA. New large allocations aiming to meet the RSS targets were emerging, but they were delayed by the transition, which coincided with the

[14] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/475832/Net_Supply_of_Housing_England_2014-15.pdf

recession. While we cannot disentangle the impact of these two factors, it seems likely that the recession played a larger role. Even if more land had been allocated sooner, there would still have been a large downturn in housebuilding.

5.12 The figure below shows that whilst the profile between the four HMA authorities and the comparator authorities, it is clear that generally the comparator authorities indexed completion rates have exceeded those of the four Essex authorities.

Figure 5.4 Housing completions - the HMA authorities and comparator areas, indexed, 2004/5 =100



Source: ONS

House prices

5.13 ONS house price data is the most robust available, but has a time delay before being published. The most recent data is only available until the first quarter of 2016[15].

5.14 Table 5.1 below shows average (mean) house prices for the four HMA authorities, the region and England.

[15] Dataset 12, House Price Statistics for Small Areas (HPSSAs), ONS.

Table 5.1 Mean house prices

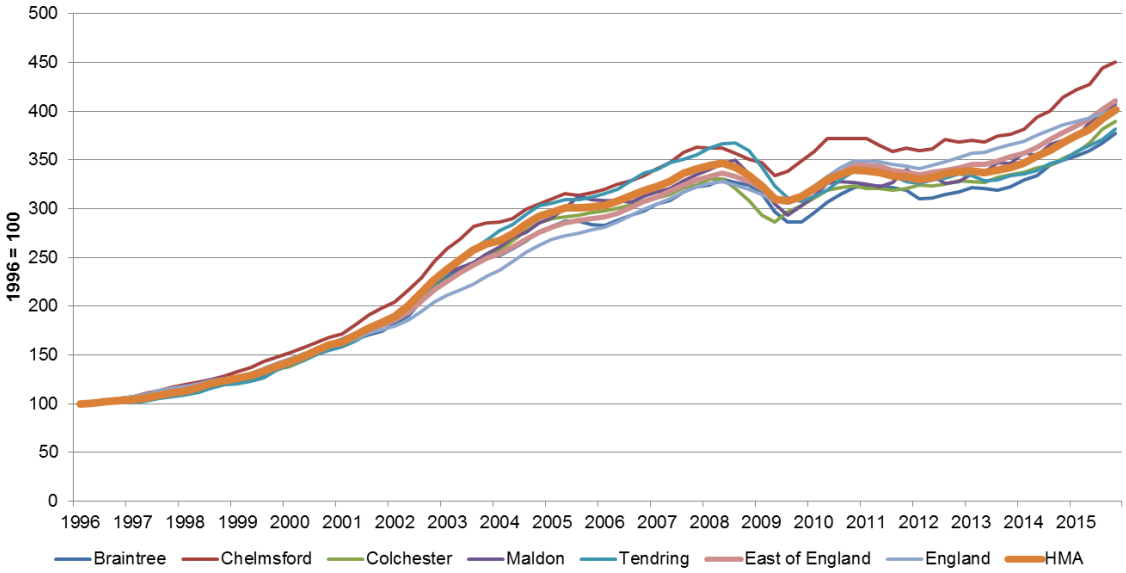
	2014 Q4	2016 Q1
Braintree	£241,114	£265,551
Chelmsford	£288,601	£319,606
Colchester	£222,331	£247,647
Tendring	£181,764	£199,199
East of England	£260,833	£288,158
England	£265,526	£282,011

Source: ONS

5.15 Only in Chelmsford are average house prices higher than for the East of England and England.

5.16 Figure 5.5 and Figure 5.6 show change in average house prices in the districts and comparator areas since 1996, which was the base date of the former Structure Plan.

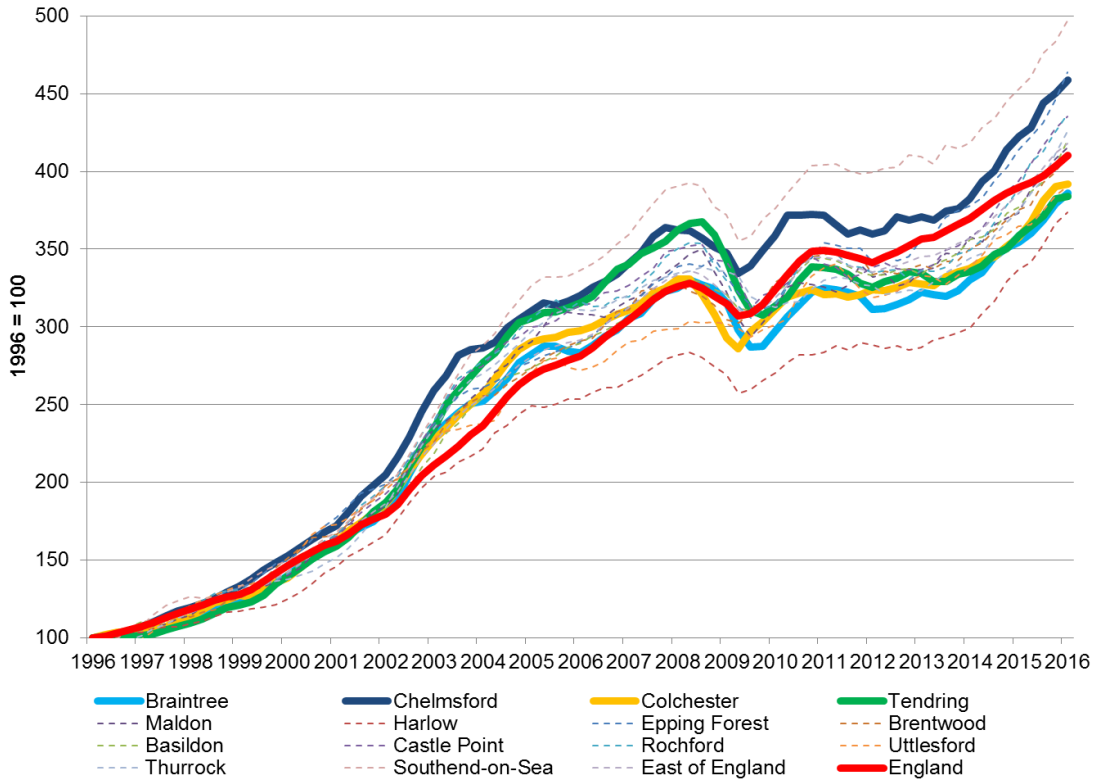
Figure 5.5 House price change (indexed), HMA authorities plus average for HMA, region and national



Source: ONS

5.17 In the base period of the Trends projection, starting in 2005, house price change in the HMA generally paralleled the national trend. But in the base period of the demographic projections, 2009-2014, house price change in the HMA authorities closely paralleled the national and regional trends. One partial exception is Chelmsford, where house price growth accelerated above the general trend, but only at the very end of the period. With the partial exception of Chelmsford, therefore, the data suggests that the HMA's falling delivery in the recession was due to low demand rather than restricted land supply.

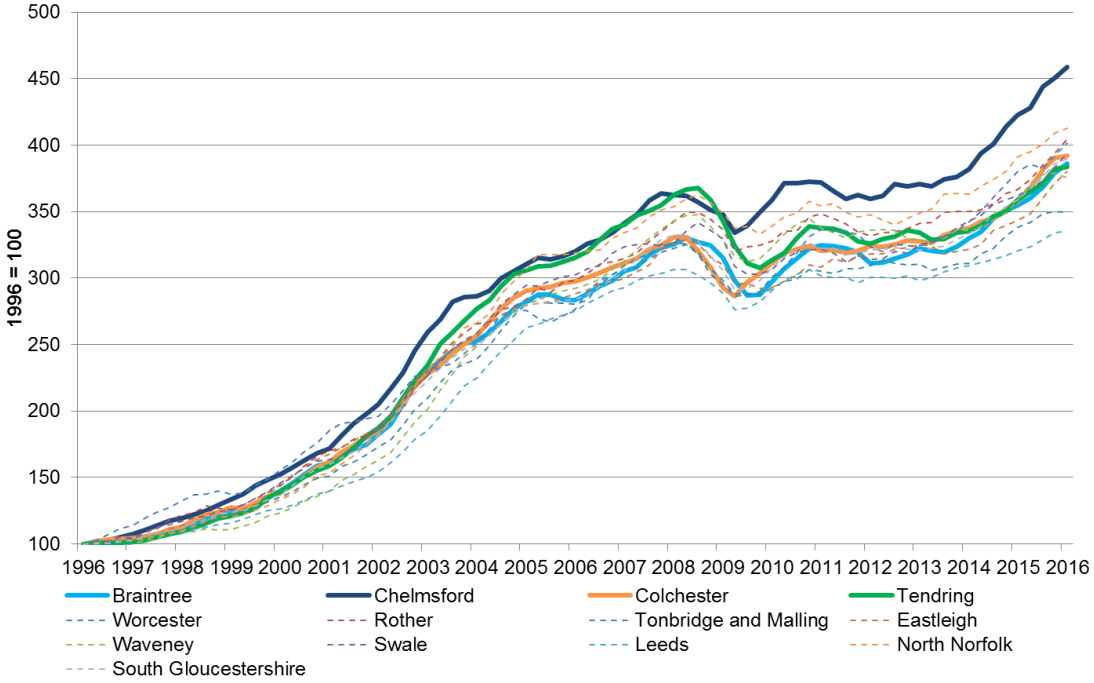
Figure 5.6 House price change (indexed) Essex authorities



Source: ONS

5.18 Comparison of house change with similar areas further afield provides a similar answer. Both in the Trends base period 2005-15 and in the shorter base period 2009-14, for three of the four districts in the HMA house price change paralleled similar areas. The one exception is Chelmsford, which has shown faster growth.

Figure 5.7 House price change (indexed) the HMA and comparator areas



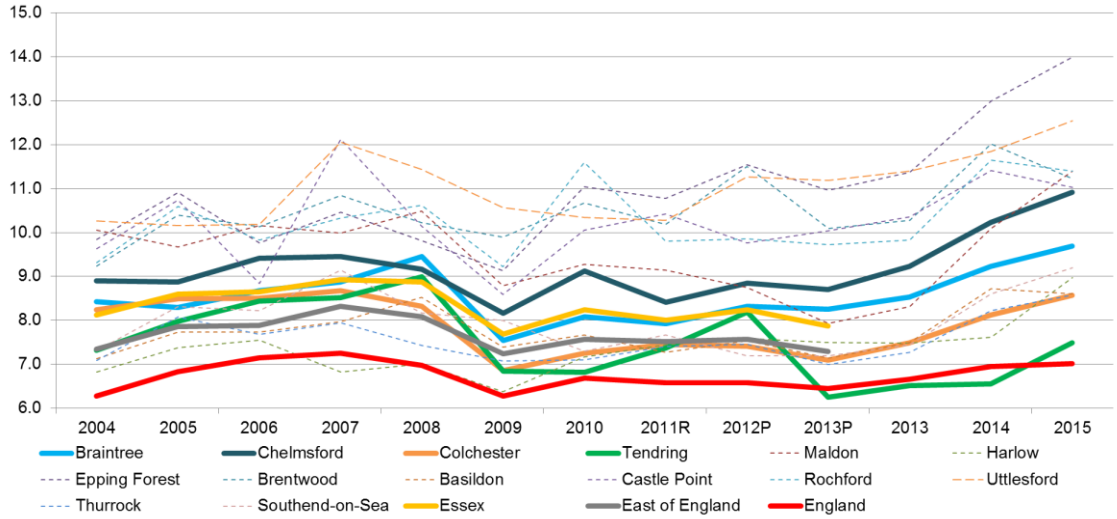
Source: ONS

Affordability

5.19 Affordability, as defined by CLG, is the ratio of lower-quartile house prices to the lower- quartile earnings of people who work in the area. A high ratio indicates low affordability, where the cheapest dwellings are less affordable to people on the lowest incomes.

5.20 Figure 5.8 below shows affordability for the HMA and its districts compared to the other Essex authorities, the East of England and England. For the HMA districts affordability is consistently worse than the national and regional benchmarks, though better than most other Essex districts.

Figure 5.8 Ratio of lower quartile house prices to lower quartile workplace earnings, Essex authorities, region and national[16]

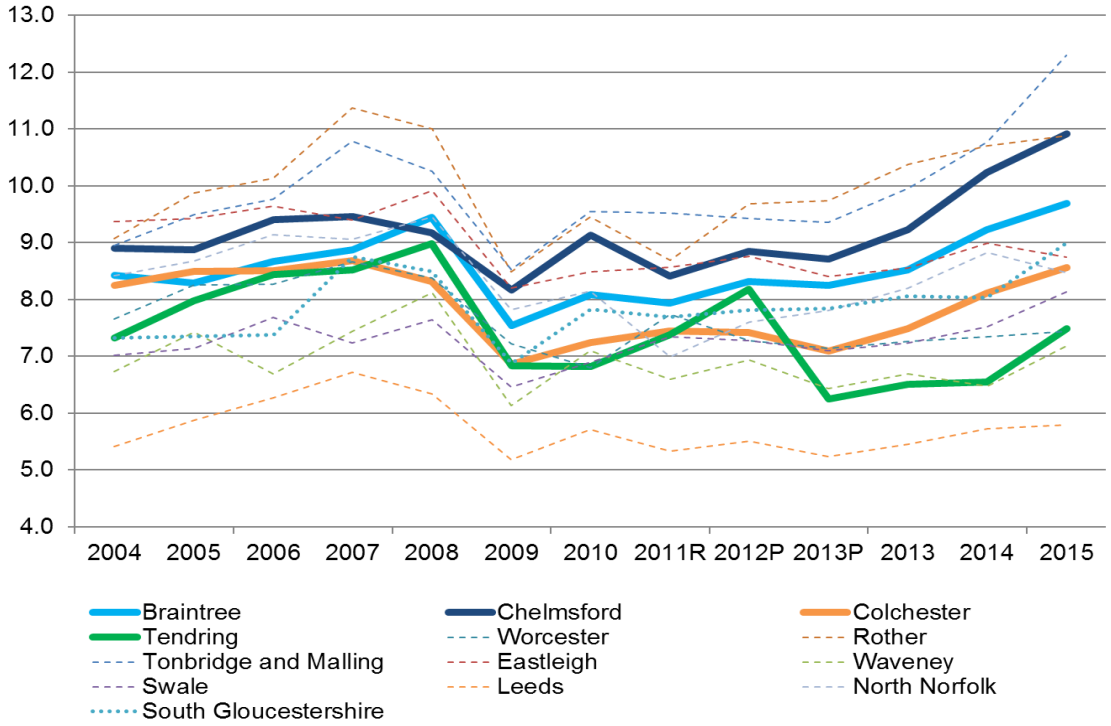


Source: CLG Table 576 Ratio of lower quartile house price to lower quartile earnings[17]

[16] CLG, after discontinuing this data series, recently restarted it. This means that for 2013 we have two data sets which differ slightly. The last of the old set (marked 'P' for provisional) and a new 2013 number as the first of the new set. The status of the 'P' set is unclear (it may simply now be revised but previously when this happened the data was marked 'R'). So for the avoidance of doubt we show both 2013 numbers here.

[17] Data for 2012 and 2013 of Table 576 (Discontinued) are provisional. CLG no longer publishes affordability data at the county and regional level.

Figure 5.9 Ratio of lower quartile house prices to lower quartile workplace earnings – HMA and comparator areas

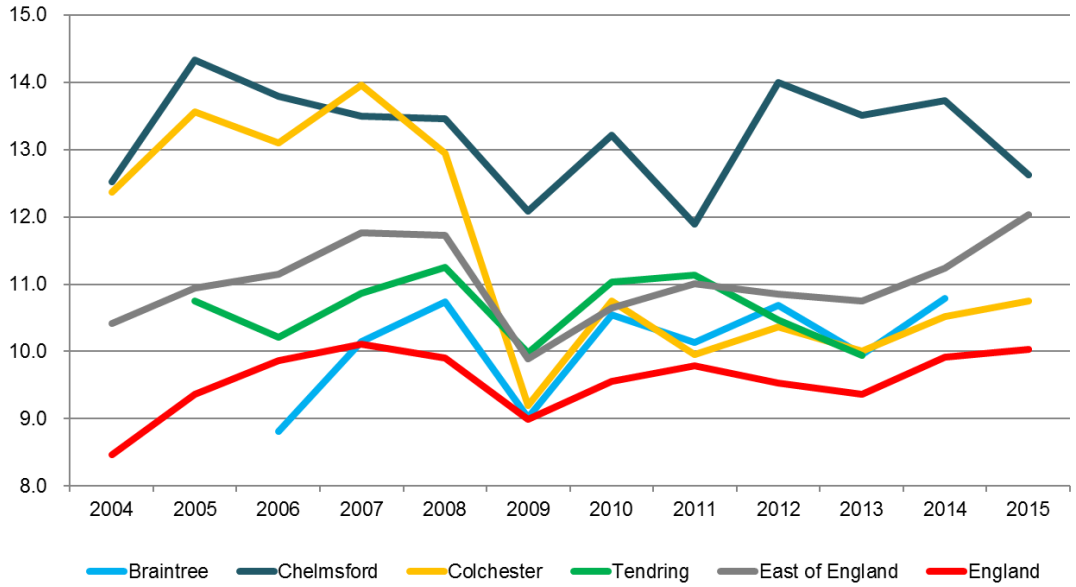


Source: ONS

5.21 As expected, the comparator areas together with the HMA authorities are closely banded, although the spread has widened in the last two years of the series.

5.22 As noted earlier, the CLG affordability ratio is based on the earning of workplace jobs in the local authority rather than the earnings of residents living in local authority. Therefore we have devised a table comparing the ratio of lower-quartile house prices to lower-quartile residents' earnings, as shown in Figure 5.10.

Figure 5.10 Ratio of lower quartile house prices to lower quartile residents' earnings

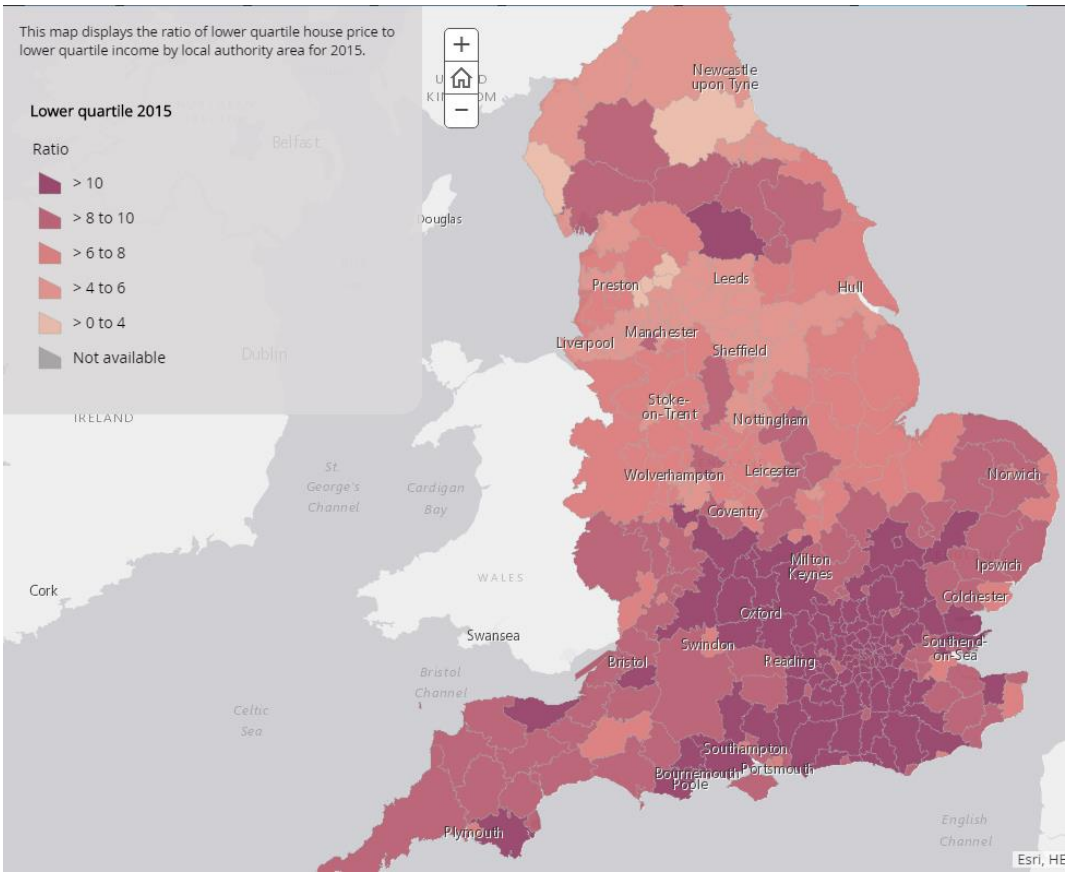


Source: PBA, ONS[18][19]

5.23 In most years all the authorities in the HMA had worse affordability than England. Chelmsford was the only authority that consistently had worse affordability than the region.

5.24 The map below, produced by CLG, shows this HMA in a national context. It shows that in 2015 the authorities in this HMA were some of the more affordable locations in the wider south east of England, and offer some of the most affordable properties in close proximity to London.

Figure 5.11 Lower quartile housing affordability in England, 2015



Source: CLG[20]

Market rents

5.25 The VOA only started to publish data on market rents from September 2011, so there is currently only limited data availability.

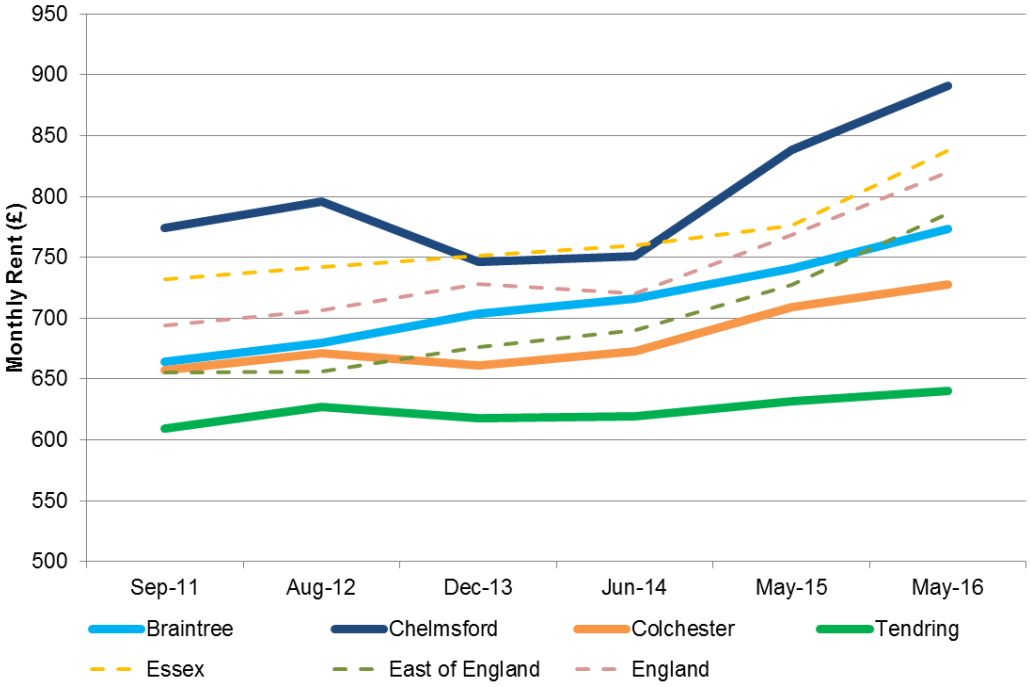
[18] Lower quartile gross annual earnings derived from Annual Survey of Hours and Earnings (ASHE); ASHE data from 2014/15 provisional. Lower quartile house prices by region and country, quarterly rolling year, year ending Q4-1995 to year ending Q4-2015, ONS

[19] Dataset is incomplete for Braintree and Tendering due to the unreliability of lower quartile earnings data published in the ASHE

[20] https://communities.maps.arcgis.com/apps/MapSeries/index.html?appid=38fdf6199ba9413ab4c1e3c24a2c5f56

5.26 Rents in Braintree and Colchester are close to the regional average, while those for Chelmsford are consistently higher, generally exceeding the average for the county, and Tendring records the lowest rents consistently lower than any benchmark.

Figure 5.12 Average monthly market rents, 2011-2016



Source: VOA Private Rental Market Statistics

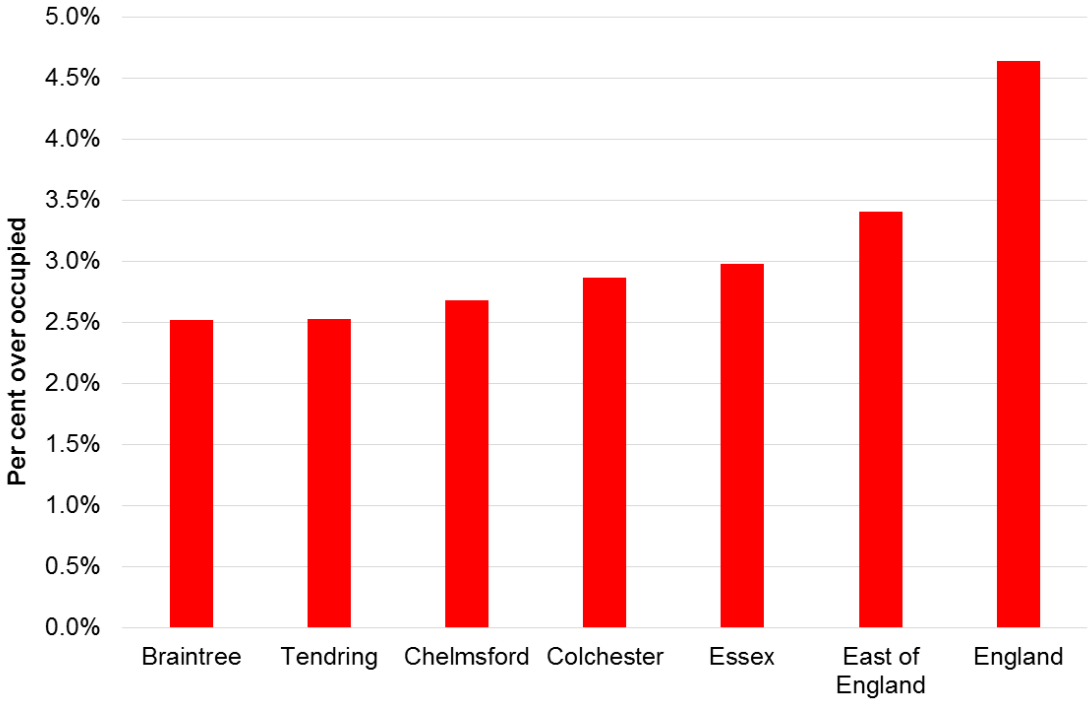
Overcrowding and concealed households

5.27 The PPG suggests that an above-average incidence of overcrowding may indicate under supply[21]. As suggested by the PPG (2a 014) we use secondary data from the Census to derive this analysis. This is not only more efficient but allows comparisons between different areas to be made on a consistent basis. Figure 5.13 below shows occupancy rates (based on the ONS definition - numbers of bedrooms occupied.) derived from 2011 Census data.

5.28 Overcrowding in all four districts is comparatively low at between 2.5-3%, and below the average for county, region and England, suggesting that in these districts there has been no shortage of supply against demand. This indicator does not support an uplift in OAN to address overcrowding in any of the districts.

[21] Note – Here we consider this data as a market signal. Following the guidance, the need to provide homes for those unable to access market housing is addressed in the affordable needs assessment following the method set out in the PPG.

Figure 5.13 Overcrowding and under-occupation



Source: 2011 Census Table QS412EW - Occupancy rating (bedrooms)

5.29 A further indicator is the number of concealed families. A concealed family is one living in a multi-family household who is not the primary family in that household. The definition includes couples with or without dependent children and lone parents of dependent children, but it excludes single people. An abnormally large number of concealed households can also be a sign of market pressure.

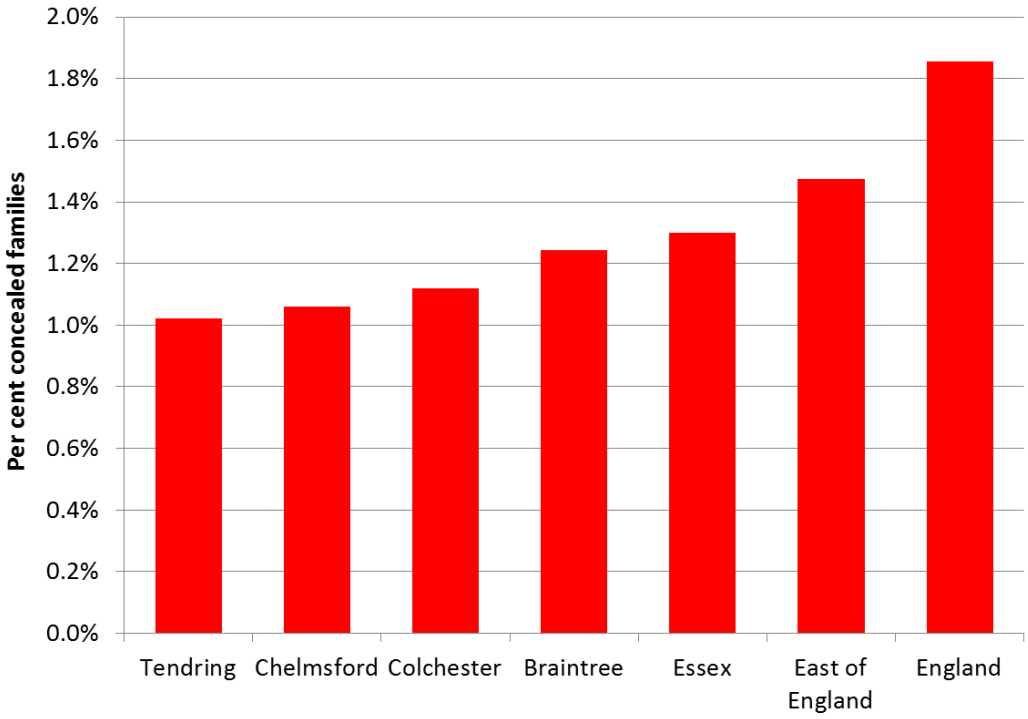
5.30 Similar to the statistics for overcrowding, numbers of concealed families are comparatively low, and more so in the four HMA districts than elsewhere. The 2011 Census reported that between 1-1.2% of families in the HMA districts were concealed, approximately half the 1.9% national average[22]. Proportions have increased since 2001, when the proportion of concealed families was 0.7% in the HMA and 1.1% in England[23]. The main reasons for the increase are likely to be due to the long-term fall in national housing formation rates and the impact of the financial crisis[24]). In conclusion the number of concealed families in the HMA districts remains low, and the rate of increase has been slower than county, region or national change. There is therefore no evidence to justify an uplift to the demographic projections.

[22] Source: Census Table LC1110EW

[23] Source: Census table CAS 011

[24] A caveat to bear in mind with concealment data is that due to reasons of confidentiality the ONS randomize the local data, which questions its reliability 2011 Census table LC1110EW has the following footnote: 'Figures have been randomly adjusted to avoid the release of confidential data.'

Figure 5.14 Concealed families



2011 Census table LC1110EW - Concealed family status by family type by dependent children by age of Family Reference Person (FRP)

Braintree

Planning background

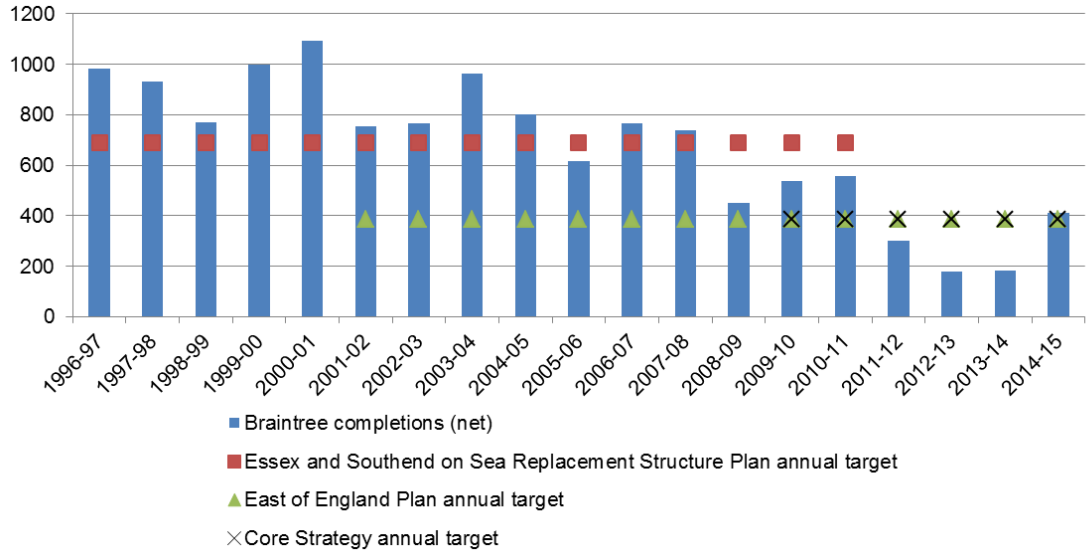
5.31 The Essex and Southend Structure Plan set a requirement for 10,300 dwellings, an annual average of 687 dpa). When the East of England Plan was adopted in 2008 it set a managed delivery target of a minimum of 290 per dwellings 2006-2021, rebasing the provision to take into account completions recorded 2001-2006 - which had been exceeding the target in Braintree, in contrast to Essex as a whole and other parts of the region.

5.32 The 2005 Local Plan adopted the Structure Plan target, but the 2011 Core Strategy set a minimum target of 4,637 dwellings between 2009 and 2026 – an annual average target of 273 dwellings per annum, less than half of the Structure Plan figure.

Housing delivery

5.33 The chart below shows housing delivery in Braintree between 1996-97 and 2014-15 against the plan targets.

Figure 5.15 Braintree housing completions



Source: Braintree Annual Monitoring Reports

5.34 From 1996 to 2011, the district achieved, and in many years surpassed its average annual housing target. Between 1996 and 2011 11,718 net additional homes were completed in the district, 1,418 dwellings above the Structure Plan target. The early Plan years, between 1996 and 2000 saw the highest completion rates.

5.35 Completions continued to generally exceed Essex Structure Plan requirements until 2008, largely attributable to completions on a number of large greenfield housing allocations, and was roughly double the RSS housing requirement. Between 2001 and 2014, 7,607 dwellings were completed leaving a residual requirement against the RSS of just 93 dwellings to be completed by 2021.

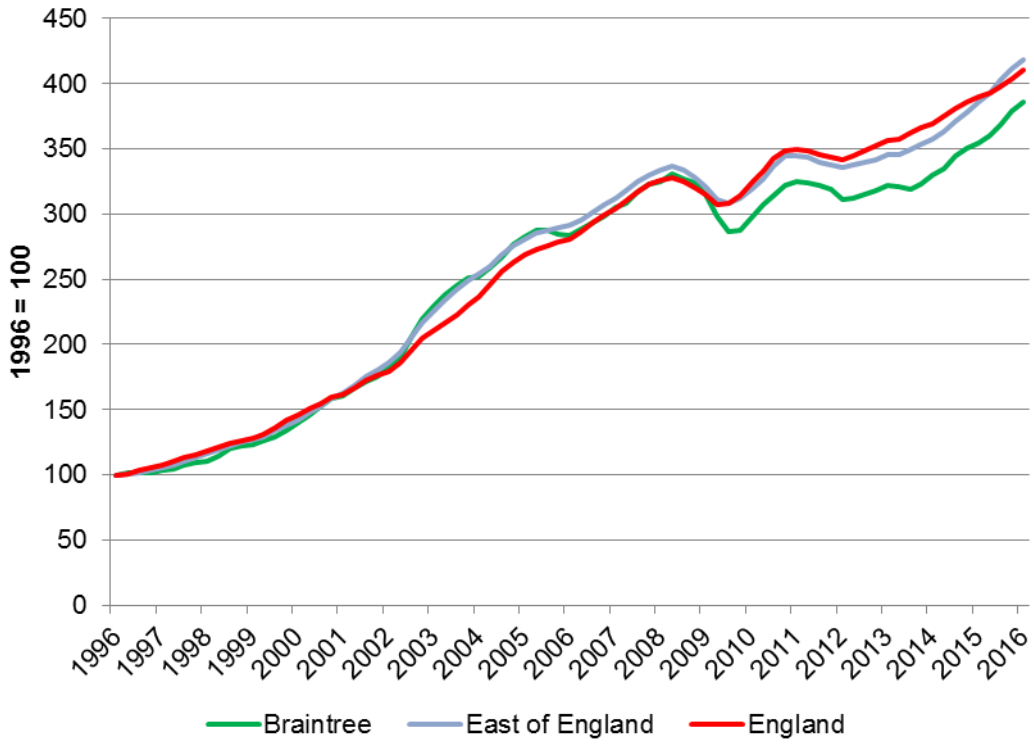
5.36 From 2009 the effects of the economic slowdown are evident in Braintree's housing delivery, and this was the time when the Council was transitioning to the much lower RSS target. Delivery fell most severely in 2013 and 2014 to less than 200 per annum at the time the national housing market was starting to improve, but then recovered in 2014/15 when 409 dwelling were completed, marginally above the Core Strategy target, but less than half that delivered consistently between 1996 and 2007.

House prices

5.37 The average house price in Braintree in the first quarter of 2016 was £265,550–lower than that of the East of England (£288,158) and England (£282,010).

5.38 In the recession Braintree's house prices fell more steeply than in England or the East region. But in earlier years, and also in the base period of the official demographic projections, 2009-14, house prices mostly tracked the national and regional trends.

Figure 5.16 Braintree house prices indexed, 1996-2016

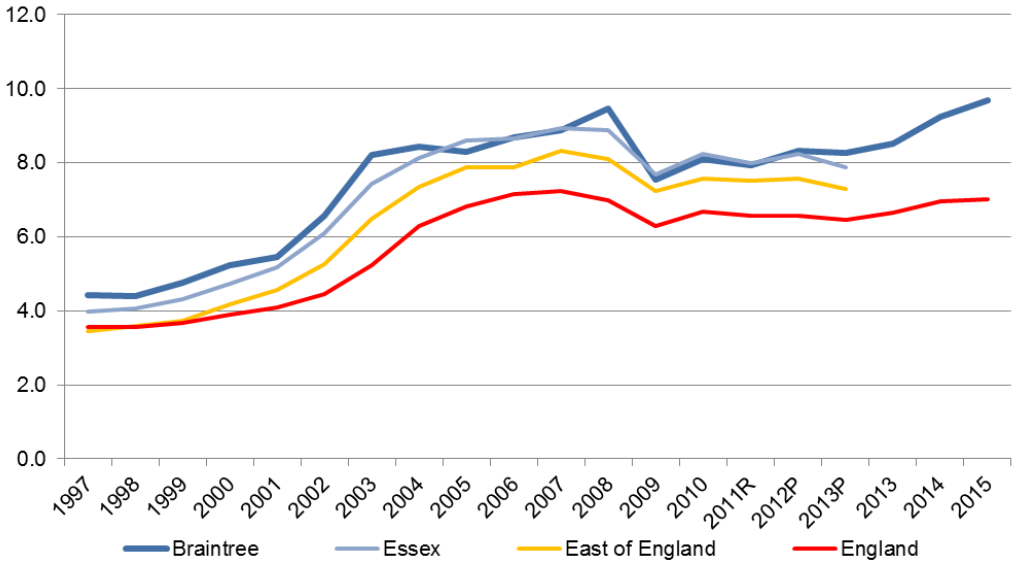


Source: ONS

Affordability

5.39 Measured in relation to workplace earnings, housing affordability in Braintree has always been worse than the national and regional average, though close to the Essex average. The gap between the district and England has tended to widen over the years, and particularly in 2014 and 2015.

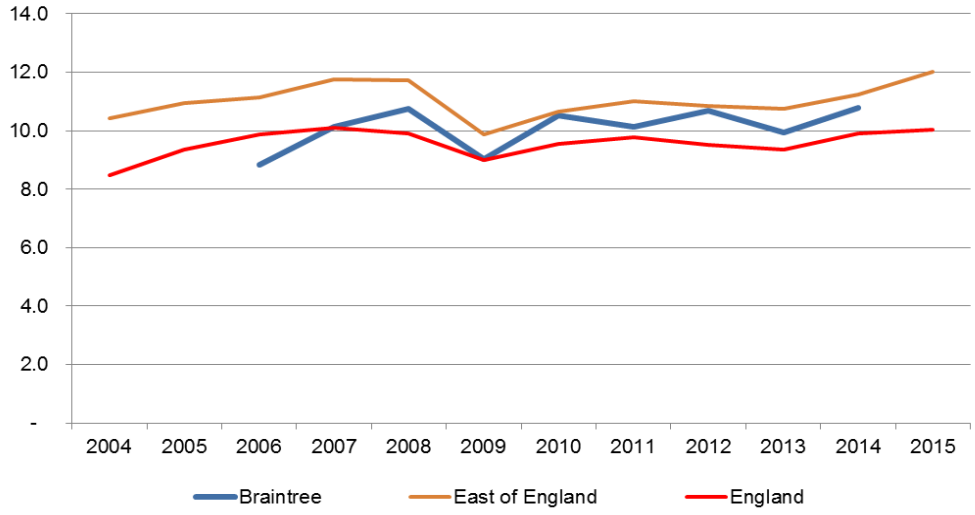
Figure 5.17 Ratio of lower quartile house prices to lower quartile workplace earnings



Source: CLG Table 576 and CLG Table 576 (Discontinued)[25]

5.40 However, in the calculation based on residents' earnings Braintree's relative affordability has been better – still slightly worse than England, but slightly better than the region's. The explanation is that Braintree residents generally earn more than people who work in Braintree, because many residents commute to higher-paid jobs in London. Unlike the workplace-based metric, the resident-based affordability ration does not seem to have worsened over time relative to England – although it is hard to tell, due to incomplete data.

Figure 5.18 Ratio of lower quartile house prices to lower quartile residents' earnings



Source: PBA, ONS[26]

[25] The new version of CLG Table 576 no longer publishes data at the county and regional level

[26] The ASHE did not publish lower quartile earnings data for Braintree in 2005 and 2015

Summary

5.41 Braintree saw sharply reduced housing delivery from 2008-09 onwards, partly due to the introduction of housing targets well below earlier rates of delivery, and land allocations to match. Thus, the indications are that planning in Braintree undersupplied housing demand. But this undersupply has not resulted in house price growth above the general trend. The likely reason is that Braintree's unmet demand was transferred to other areas in the HMA and beyond.

Chelmsford

Planning background

5.42 The Essex and Southend Structure Plan ran from 1996 and 2011, and set a plan target for Chelmsford of 777 dpa.

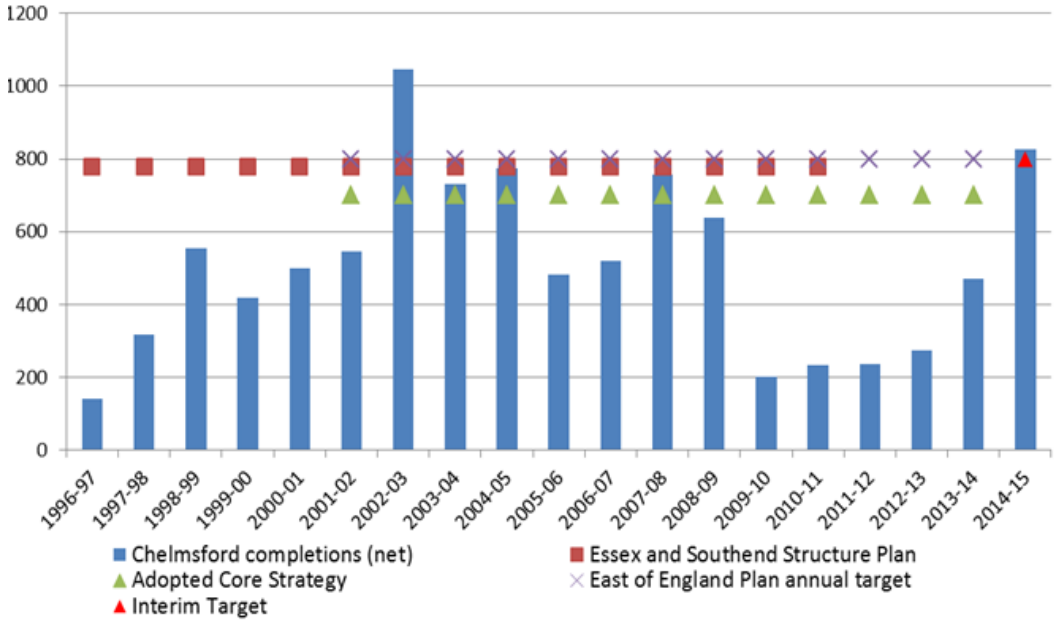
5.43 Chelmsford's 2008 Core Strategy set a minimum requirement of 14,000 net new dwellings (700 dpa) for the 2001-2021 period. This figure was in accordance with the Draft East of England RSS. The final East of England RSS set a figure of 800 dpa. However, the Council's Housing Trajectory at that time made provision for 16,170 new dwellings, which could deliver 808 dpa. Following the revocation of the East of England RSS, the Council approved an annual Interim Housing Target of 800 dpa in November 2014

5.44 The Core Strategy sought to make the best use of Previously Developed Land (PDL) predominately in Chelmsford's Urban Area. The majority of the remaining housing requirement would be made up of new neighbourhoods to the North of Chelmsford's Urban Area providing 4,000 homes. The North Chelmsford Area Action Plan has allocated greenfield sites for the proposed urban extensions, and these are currently being developed.

Housing delivery

5.45 Figure 5.19 below shows housing completions from 1996-97 to 2014-15 against the applicable plan targets.

Figure 5.19 Chelmsford housing completions



Source: AMR

5.46 Over the 20-year period housing completions have met the plan target on only five occasions. In most other years housing completions have been far below Plan requirements.

5.47 Between 2001 and 2015, only 7,731 new homes were completed in the district. This leaves a residual requirement of 6,269 homes to be completed between 2015 and 2021 based on the overall 14,000 target, equal to 1,044 dwellings per annum which is 50% above the Core Strategy annual target.

5.48 The significant drop in housing completions from 2009/10 to 2012/13 is attributed to the economic downturn.

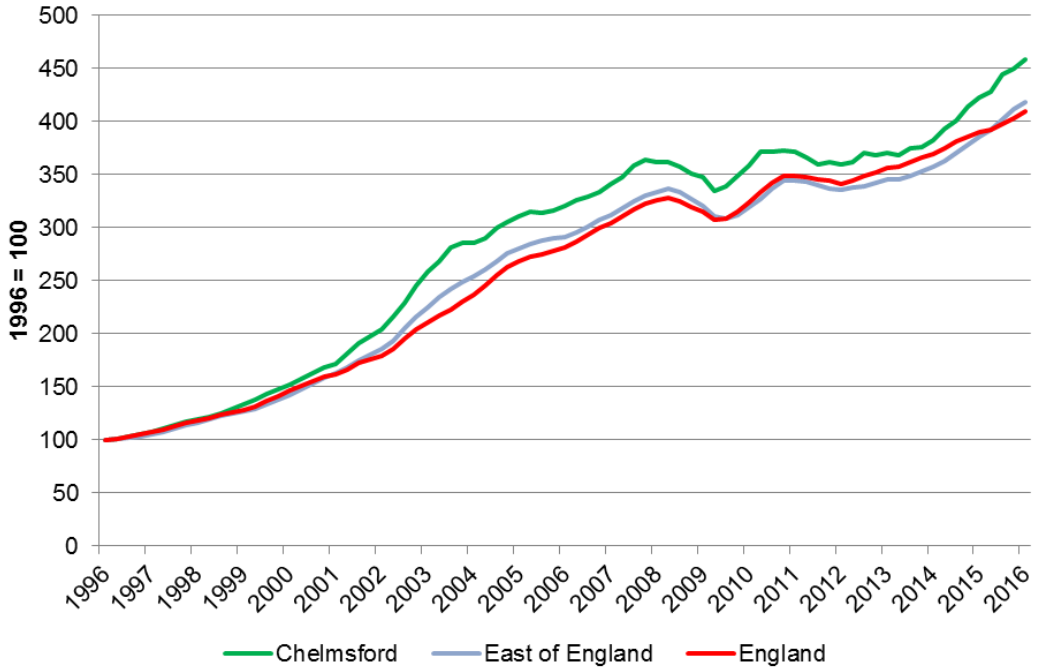
5.49 In 2012; the Council granted planning permission for strategic housing sites including the North East Chelmsford Urban Extension which is currently being developed., Housing completions across this urban extension will further accelerate in the later years of the plan period.

5.50 Housing completions increased steeply in 2013-14, and again in 2014-15 and 2015-16, and this was the first year when housing completions have returned to Plan requirements since 2007/8.

House prices

5.51 Chelmsford's mean house price in Q1 2016 was £319,606, against £288,158 for the East of England and £282,011 for England. Average house prices in Chelmsford are the highest in the HMA and higher than the comparator areas.

Figure 5.20 Chelmsford indexed house prices, 1996-2016



Source: ONS

5.52 As noted earlier, house price growth in Chelmsford accelerated in the early 2000s, ahead of national and regional trends. But in the base period of our demographic projections, from 2005 onwards, the district's house price growth roughly paralleled wider trends, except that it accelerated at the very end of the period.

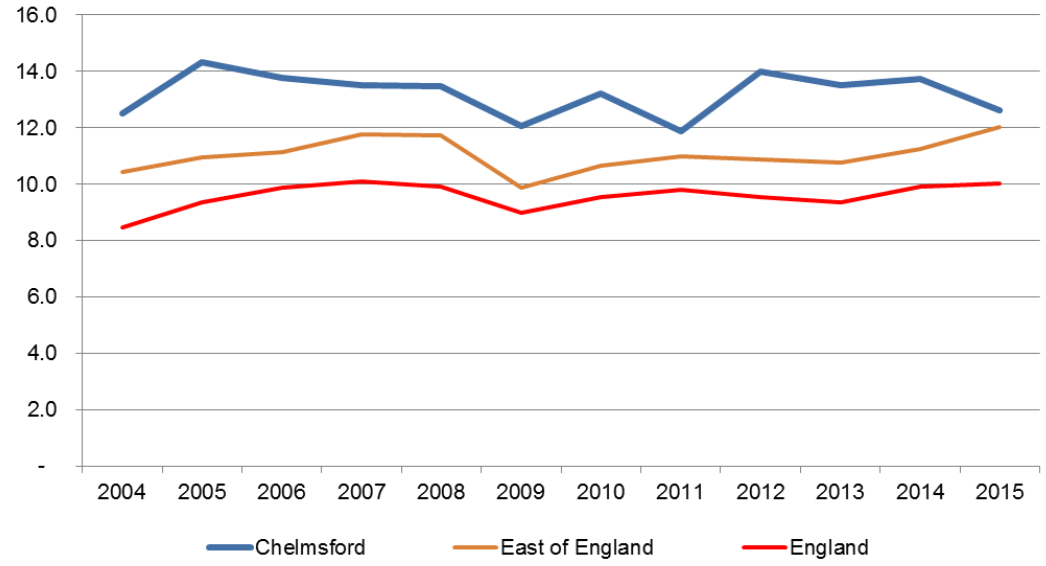
Affordability

5.53 On both measures of affordability, housing in Chelmsford is less affordable than all comparator areas. On the CLG measure, which is based on workplace earnings, the gap between Chelmsford and England has widened over the last few years.

Figure 5.21 Ratio of lower quartile house prices to lower quartile workplace earnings

Source: CLG Table 576 and CLG Table 576 (Discontinued)27

Figure 5.22 Ratio of lower quartile house prices to lower quartile residents' earnings



Source: PBA, ONS

Summary

5.54 Homes in Chelmsford are more expensive than most of the rest of HMA. But in the base period of the projections the district's house price change has generally paralleled that for comparator areas, except in the last year or two, when it

[27] The new version of CLG Table 576 no longer publishes data at the county and regional level

accelerated against wider trends. Chelmsford is much less affordable than most of the ONS comparator areas

5.55 One possible reason why, in terms of house price change, the signals are not more adverse compared to HMA neighbours is that housing need was met elsewhere as opposed to building market pressure in Chelmsford; either within this HMA or in other housing market areas. Most housing demand in this HMA is migration-led and this demand is likely to be footloose.

Colchester

Planning background

5.56 The Structure Plan target for Colchester was 11,000 homes (773 dpa), and in 2004 the Council adopted the Colchester Local Plan, which took its housing target from the Structure Plan and identified sufficient provision to meet the Structure Plan requirement. Housing development was to be focused on the following broad allocations - Town Centre, North Colchester, East Colchester and the Hythe, South Colchester (The Garrison) and Stanway.

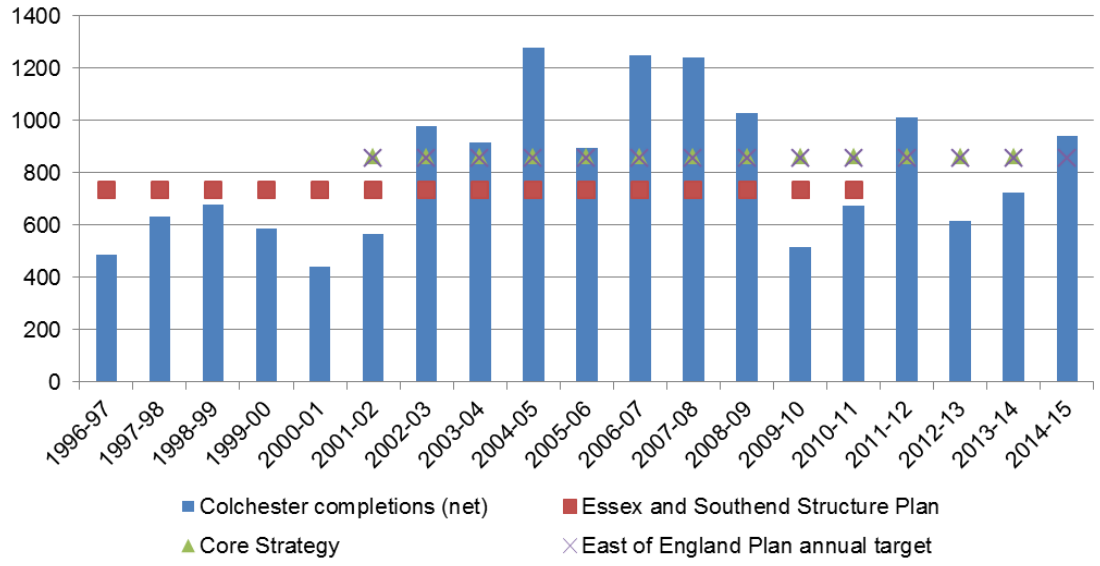
5.57 The RSS had a plan target of 17,100 homes to be built between 2001 and 2021. The annualised plan target was 830 dwellings per annum.

5.58 The Council adopted its Core Strategy in December 2008 and it took its target from the RSS. However, since the plan period was extended from 2021 to 2023 an additional 1,710 homes were added to the Core Strategy target. As such the Core Strategy target was for 830 dpa up to 2021, and 855 units for the 2021 – 2023 period, a slightly higher target compared with the RSS.

Housing delivery

5.59 Figure 5.23 below shows net housing completions from 1996-97 to 2014-15 against plan requirements.

Figure 5.23 Colchester housing completions



Source: AMRs

5.60 Between 1996 and 2002 housing completions in the borough were below the Structure Plan target. But in 2003-2009 many more dwellings were completed, as site allocations such as Colchester Garrison, North Colchester and Stanway were taken up. For the HMA as a whole this peak in delivery may have partly offset the low rate of housebuilding in other parts of the HMA, especially Chelmsford.

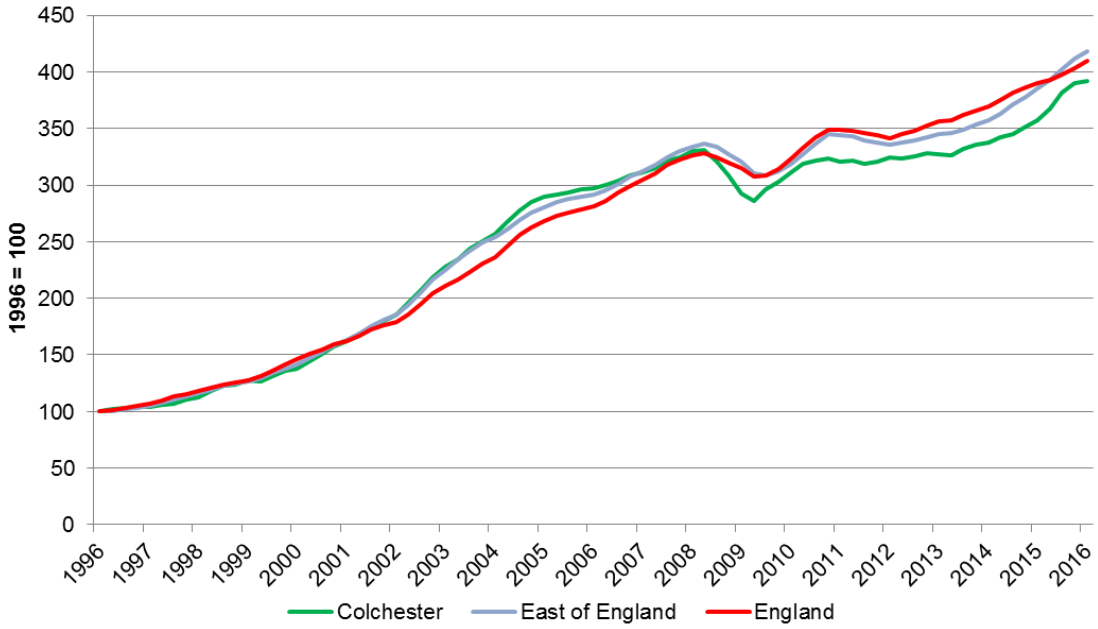
5.61 Overall between 1996 and 2011 12,178 homes were completed in the district, generating a surplus of 1,178 dwellings against Structure and Local Plan targets.

5.62 The impact of the recession is evident in completion numbers in 2009/10 and 2010/11, but is less deep and less prolonged compared to the other HMA authorities.

House prices

5.63 The average house price in Colchester in the first quarter of 2016 was £247,647 – lower the East of England (£288,158) and England (£282,010).

Figure 5.24 Colchester indexed house price, 1996-2016



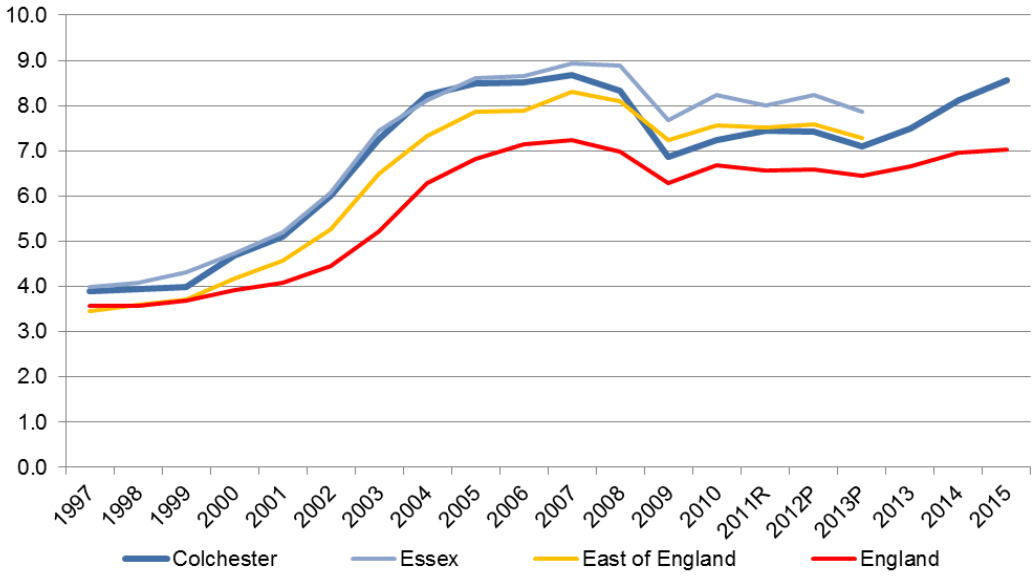
Source: ONS

5.64 In the base period of the official demographic projections house prices in Colchester closely tracked the national and regional averages; although earlier, in the recession, prices fell slightly faster than for England and the region.

Affordability

5.65 The affordability ratio in Colchester matched the average for Essex until 2006, but has since been consistently lower (and better) than that for the county, and since 2009 has tracked the regional average. Over the whole period all indices have been above the national average, meaning housing is less affordable in Colchester compared with the national average.

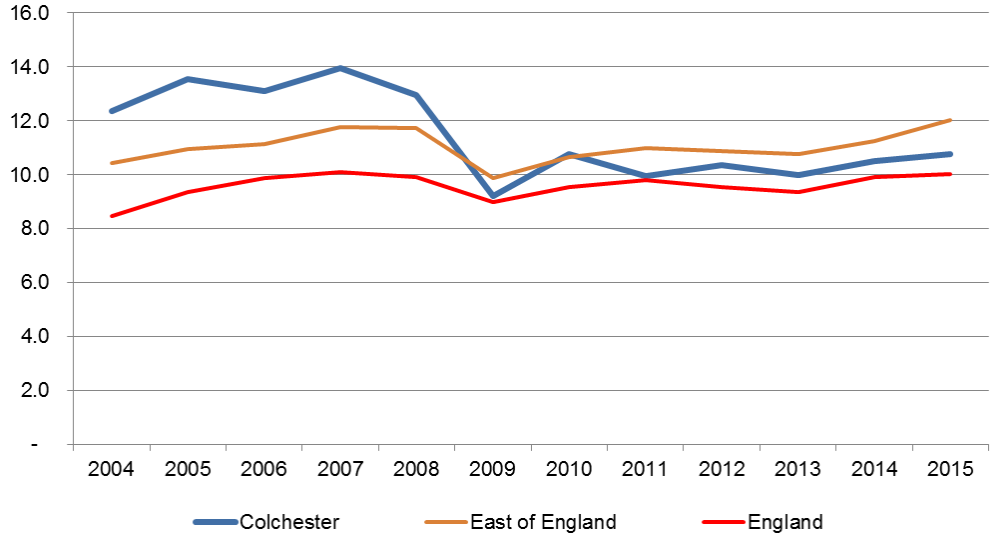
Figure 5.25 Ratio of lower quartile house prices to lower quartile workplace earnings



Source: CLG Table 576 and CLG Table 576 (Discontinued)[28]

5.66 Below we consider affordability for Colchester's resident population.

Figure 5.26 Ratio of lower quartile house prices to lower quartile residents' earnings



Source: PBA, ONS

5.67 Housing in Colchester was substantially less affordable in the second half of the 2000s compared to the region and national averages. However, when the financial crisis occurred affordability in Colchester improved rapidly and matched the national average. Since 2009 affordability has worsened in Colchester taking it one point above the national average, but it remains one point below the regional average.

Summary

5.68 Housing delivery in Colchester held up relatively well in the recession. In the reference period on which the official demographic projections are based, delivery fell below targets, but again not as fast as other areas. There was also a supply of land available should the market be willing to deliver more new homes. Consistent with this evidence, price signals provide no evidence of undersupply: despite being on the main railway from London Colchester is one of the most affordable areas in the HMA and also in Essex. There is no justification in Colchester for applying a market signals uplift to the demographic projection.

Tendring

Planning background

5.69 The Essex and Southend-on-Sea Structure Plan (1996-2011) housing target for Tendring was 6,250 homes giving an annualised target of 417 dwellings per annum (dpa).

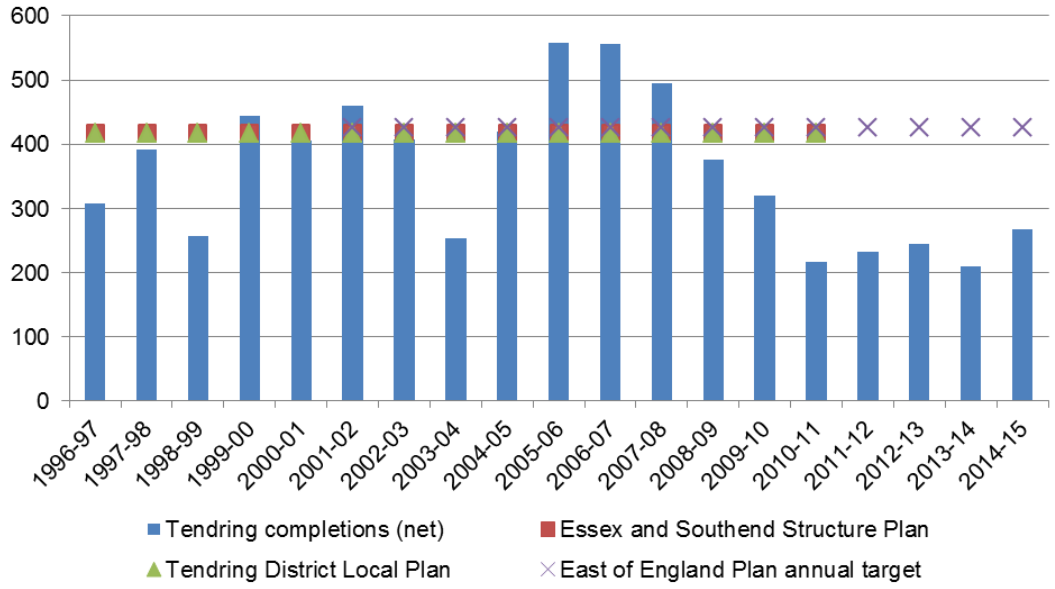
5.70 The RSS had a minimum plan target of 8,500 dwellings per annum from 2001 to 2021, an annualised housing target of 425 dpa.

5.71 The 2007 Replacement Local Plan housing requirement was based on the Structure Plan figure, and sought to deliver 2,917 homes between 2004 and 2011. The district has commenced preparation of a new Local Plan, but in the meantime there is no up-to-date Local Plan.

Housing delivery

5.72 Figure 5.27 below shows housing completions in the district from 1996/7 to 2014/5.

Figure 5.27 Tendring housing completions



Source: Tendring AMRs

5.73 The district delivered 5,865 dwellings over the Structure Plan period, just 385 less than the target. Until 2008, housing completions in the district met, and in some years exceeded plan targets. This was due to a particularly buoyant housing market, and a large supply of previously developed land and windfall sites meaning there was a supply of housing land to meet the demand for new homes.

5.74 Since 2009 the availability of previously developed land and the number of completions has reduced substantially, and completions have been associated with greenfield site allocations in the Local Plan.

5.75 But, as noted above, the district currently does not have an up-to-date development plan with new land allocations. This means that the main supply of housing land is almost entirely windfall sites, but the recession has reduced the supply of windfall sites and the cost of promoting small sites through the planning system on a case-by-case basis may be containing market-led delivery. As referenced in the AMR the five-year land supply in the district has fallen from a 4.6-year supply in 2010 to 2.7 years in 2014.

5.76 One problem interpreting signals here is that if the district had an up-to-date development plan, with land allocations, delivery may not have fell so early or so sharply; the peak seen in 2005-06 may have continued until the national slowdown a couple of years later. With a healthy land supply the market may also have picked up in the last few years as development on allocated sites re-commenced.

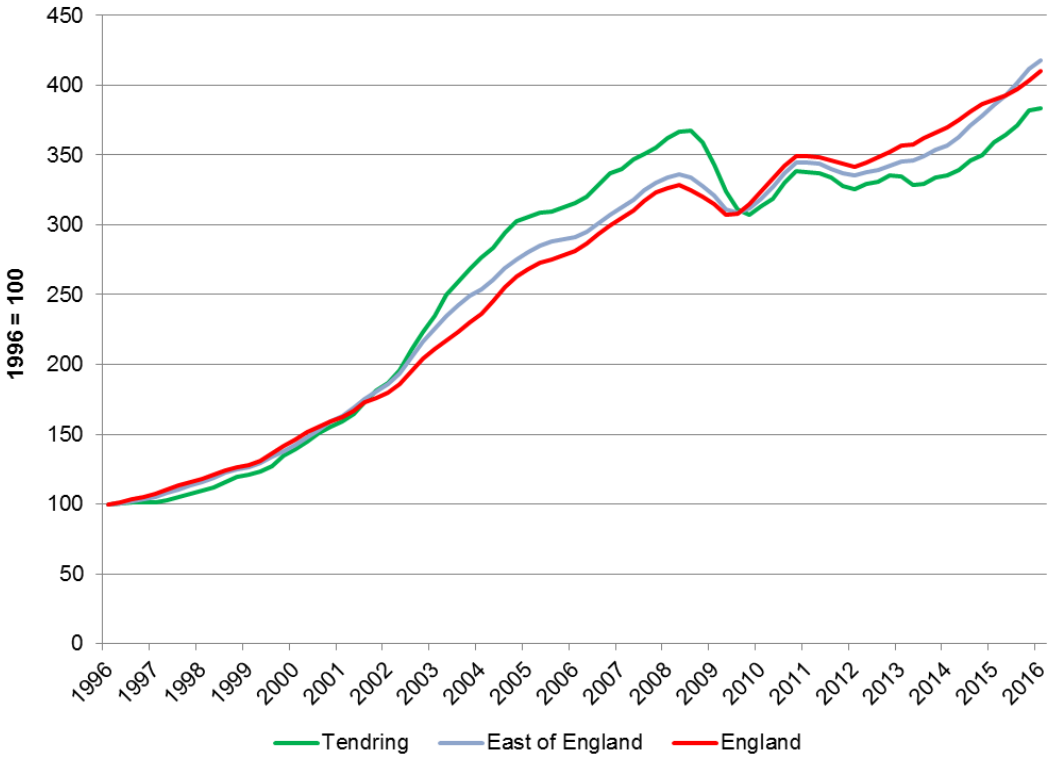
5.77 It is difficult to prove this either way. But where a council lacks an up-to-date development plan the analysis is much more vulnerable to challenge. It is much harder to demonstrate delivery was low simply because of weak market demand.

House prices

5.78 Average house prices in Tendring in Q1 2016 were the lowest in the HMA at £199,199 as of Q1 2016. This is compared to £288,158 for the East of England and £282,011 for England.

5.79 House price growth outstripped the region and England in the early 2000s. But in the base period of our demographic projection house price growth in Tendring was below the region and England.

Figure 5.28 Tendring indexed house price change, 1996-2016

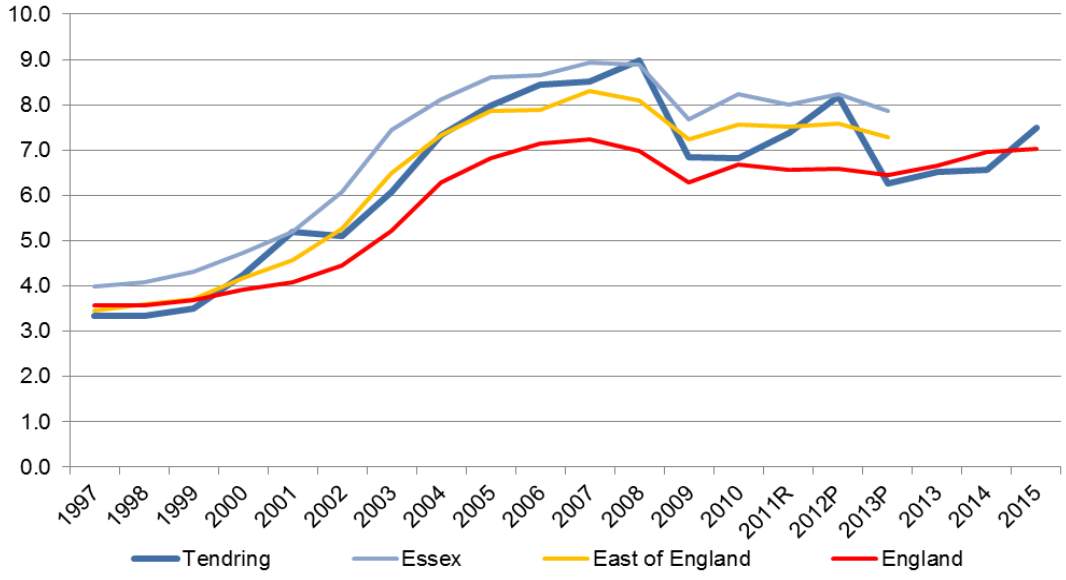


Source: ONS

Affordability

5.80 Tendring has relatively good affordability when compared to the regional average, but a higher ratio than the national average.

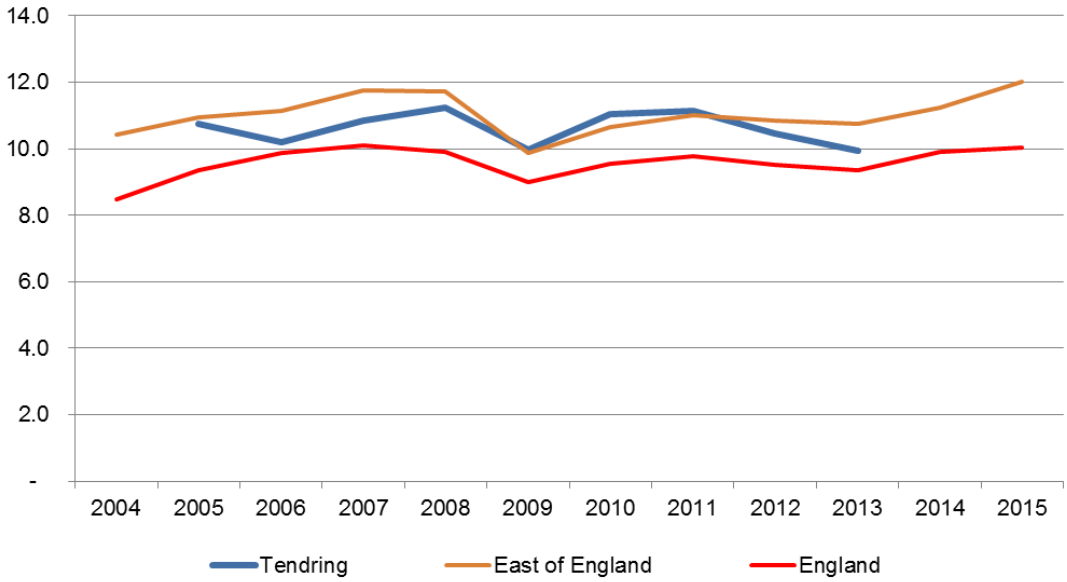
Figure 5.29 Ratio of lower quartile house prices to lower quartile workplace earnings



Source: CLG Table 576 and CLG Table 576 (Discontinued)[29]

5.81 Below we consider affordability for Tendring's resident population.

Figure 5.30 Ratio of lower quartile house prices to lower quartile residents' earnings



Source: PBA/ ONS[30][31]

5.82 Affordability has remained comparatively stable in Tendring, broadly matching the region, but worse than the national average. This is very similar to affordability in Braintree and Colchester, and better than Chelmsford where the affordability ratio is above 12.

Summary

5.83 In Tendring, as in Braintree, the supply of housing land in recent years has been tight. However, unlike Braintree, where policy deliberately aimed for fewer new homes, in Tendring the supply blockage was partly due to a planning hiatus, coinciding with the recession, which cut off the supply of windfall sites.

5.84 When delivery fell in Tendring house prices also fell. This may be because new homes are more expensive than second-hand stock. But it may also indicate that the downturn in delivery owed more to constrained demand than constrained supply. The lack of plan coverage makes it very difficult to draw firm conclusions here.

5.85 One demand-side factor that has depressed demand is the state of the local economy. Tendring has the highest unemployment rate of the HMA's districts, and is least accessible to London. This has made the housing market especially vulnerable in the recession.

[29] The new version of CLG Table 576 updates lower quartile affordability data from 2013 to 2014. CLG no longer publish data at the county and regional level.

[30] ONS in the ASHE did not record lower quartile gross annual pay data in 2004 and 2014 for Tendring because the data was unreliable.

[31] ONS did not publish lower quartile data for Tendring in the ASHE because the data was considered unreliable.

The market signals uplift

5.86 Looking at the HMA as whole, there are three pieces of evidence which suggest that an uplift to the demographic projections may be justified.

5.87 The first issue is that planning may have undersupplied housing land against demand and need. Housebuilding declined in the four HMA districts from 2008 onwards, but the reasons are difficult to identify conclusively because of the influence of the recession is coterminous with the abolition of the RSS housing targets. Therefore it is unclear how much of the decline is attributable to a lack of demand as opposed to constrained supply i.e. insufficient sites allocated in plans. In Tendring the lack of plan coverage is likely to have suppressed the supply of land; should more land have been made available in the past delivery (and the trend based projections) may have been higher. The same also applies to Braintree, where the reduction in plan land supply was deliberate.

5.88 The second issue is affordability, but this should be kept in perspective: while affordability across the HMA is slightly worse than for the region and England, is it clearly better than for most other areas as close to London.

5.89 The third issue is that the market signals for Chelmsford, closest to London, have deteriorated and in absolute terms the district is less affordable and more expensive than comparators.

5.90 Once a market signal issue has been identified the PPG does not specify how the demographic starting point should be adjusted:

> *'Market signals are affected by a number of economic factors, and plan makers should not attempt to estimate the precise impact of an increase in housing supply. Rather they should increase planned supply by an amount that, on reasonable assumptions and consistent with principles of sustainable development, could be expected to improve affordability, and monitor the response of the market over the plan period.'*[32]

5.91 There is no fixed empirical or statistical approach to arrive at the level of adjustment to address market signals. Based on the PPG requirements, Inspectors' decisions approached the matter as an exercise of judgement.

5.92 In Eastleigh, the Inspector noted that affordability had worsened more than the national average and rents had risen more than the average. On this basis he concluded that '*a cautious approach is reasonable bearing in mind that any practical benefit is likely to be very limited because Eastleigh is only a part of a much larger HMA… Exploration of an uplift [to the demographic projections] of, say, 10% would be compatible with the 'modest' pressure of market signals'.*

5.93 In Uttlesford, the Inspector mentioned that house price increases had been slightly less than for Essex and England but from a very much higher base; median rents were higher than these comparators and had risen faster; and affordability had risen to a much higher peak prior to the recession. '*Taking in the round'* these market

[32] Reference ID: 2a-020-20140306

signals as well as affordable need, the Inspector advised an uplift of 10%. He did not apportion the uplift between these two factors.

5.94 In Canterbury, the Inspector focused on three main market signals:

- Median house prices 12% above the national average
- House price growth some 20 percentage points above the national average;
- Affordability ratio consistently above the national benchmark - currently 9 against 6.5 for England.

5.95 The Canterbury Inspector recommended an uplift of 30% to take account of these market signals, together with future jobs, affordable housing need and a post-recession recovery in household formation rates[33]. The Inspector noted that these four factors overlapped and did not apportion the uplift between them.

5.96 In March this year the High Peak Inspector agreed to a 5% upward adjustment to the OAN as proposed by the Council to allow for a very modest improvement in affordability and to stabilise increasing house prices which relative to comparable areas nearby (the Derbyshire average) were *experiencing worsening market conditions*. High Peak's affordability ratio stood at around 6, which was better than that for England but marginally worse compared to Derbyshire. House prices were 17% below the national average, but 10% above the county and for a number of years had remained above the county average. The Council acknowledge that the scale of the adjustment *would not need to be substantial.*

5.97 In considering the scale of the adjustment the Inspector stated:

> *'Having regard to the circumstances of the degree of uplift used by Inspectors at other examinations in comparison with the significance of the considerations here, the 5% used by the Council is a reasonable assumption.'*

5.98 The table below summarises market indicators for the latest available dates, comparing the four districts to national averages.

[33] Canterbury pre-dated the academic evidence discussed in Chapter 3 regarding headship rates. This element of increase is no longer supported. Further the High Court has confirmed that a need for affordable homes increases the plan target. Not the OAN.

Table 5.2 Market signals summary

	Mean house prices (£)	Affordability ratio (workplace earnings)	Affordability ratio (residents' earnings)	Average private monthly rent (£)
	Q1 2016	2015	2015	May 2016
Braintree	265,551	9.7	10.7*	773
Chelmsford	319,606	10.9	12.6	891
Colchester	247,647	8.6	10.8	728
Tendring	199,199	7.5	10.1	640
England	**282,011**	**7.0**	**10.0**	**820**

Source: ONS, VOA, Nomis and PBA[34]

5.99 For Chelmsford there is an obvious need for a market signal adjustment. House prices, and private rents are well above and affordability is substantially above the national average. This in our judgement justifies an adjustment of 20%.

5.100 For Braintree the evidence of possible under-provision is weaker. The main evidence pointing to an undersupplied market is that housebuilding has been deliberately constrained by past policy; and affordability is comparatively poor and has been worsening in relative terms, albeit only on one of the two measures we have used. In our judgement this evidence justifies a market signals uplift, which should be lower than for Chelmsford. As a maximum 15% could be justified. Alternatively 10% may be reasonable.

5.101 For Colchester the housing affordability ratio is slightly above the national average, but house prices and private rents are well below national averages, and housing delivery was less effected by the recession compared to the other HMA authorities, and completions exceed Plan targets. There is no strong evidence of a need for a market signal uplift here.

5.102 For Tendring, market indicators are more favourable than the national average, except for affordability, which is close to the national average. Taken in isolation this would suggest no justification for a market signals uplift. But the evidence of past delivery suggests otherwise, as discussed earlier. Another issue for Tendring is that the starting point demographic projection is highly uncertain, due to the UPC. We suggest an uplift of 15% to that demographic projection, which brings the OAN to 550 dpa.

[34] *Data on lower quartile residents' earnings for 2015 was unavailable. We have therefore used 2014 data for Braintree

6 FUTURE JOBS

Introduction

6.1 This chapter examines whether housing provision in line with our preferred demographic projections would support enough workers to match the future job growth expected in the area. If that were not the case, in line with the PPG and established practice the projections should be adjusted upwards - unless the labour market can be brought into balance by other means, such as transport infrastructure. The underlying principle is that planning for housing, economic land uses and community facilities / services should be integrated[35], so that the demand for labour is fulfilled and there is no unsustainable commuting.

6.2 The analysis below uses the same approach as the 2015 study, updated to take account of the latest data and forecasts. We first deal with the three districts of Braintree, Chelmsford and Colchester. We then turn to Tending, for which we use a different method, because economic forecasts (like the demographic projections discussed in Chapter 3) are distorted by the UPC.

Braintree, Chelmsford and Colchester

6.3 To analyse labour market balance we use the East of England Forecasting Model (EEFM), and then check findings against a separate set of forecasts, from Experian.

The EEFM / Edge forecasts

Introduction

6.4 The EEFM has its roots in regional planning and is now managed by Cambridgeshire Insight, part of Cambridgeshire County Council on behalf of a large consortium of authorities in the East of England and beyond.

6.5 Our 2015 report was informed by EEFM 2014, published in January 2015. For the present update we use EEFM 2016, which was published in August 2016 but nevertheless takes no account of Brexit. Cambridge Econometrics are now producing the forecasts, having replaced Oxford Economics (OE), but the model itself is still as designed by OE.

How the model works

6.6 EEFM is a fully integrated model, which provides a consistent view of a range of economic and demographic variables. In the model population change, and the resulting housing demand, are driven by the demand for labour as well as demographic factors. For each local authority district the model proceeds as follows.

[35] NPPF paragraph 70

Labour demand

- Demand, measured by the number of workplace jobs[36], depends partly on the size of the local population – because people's consumption of local services creates jobs in retail, leisure and so forth – and partly on wider national / global demand. To turn workplace jobs into resident workers the model proceeds in three steps:
  - It applies a double-jobbing[37] factor to translate workplace jobs into workplace people employed.
  - It subtracts net commuting from workplace people employed to arrive at the demand for resident workers.

Labour supply

- On the supply side, the future resident population is initially determined by natural change and trend-driven migration ('non-economic migrants') (the EEFM makes its own projections rather than using the official ONS ones).
- To translate the population into labour supply (economically active people, the labour force) the model applies economic activity rates.

Labour market balance

- It then compares the resulting with the labour demand estimated earlier, to produce unemployment in each area. Places with low unemployment attract above-trend net migration ('economic migrants') as people move to places where there are more job opportunities. Hence the resident population in these places rises above the initial trend-driven number, while conversely in places where unemployment is high population falls below the trend-driven number.

Housing demand

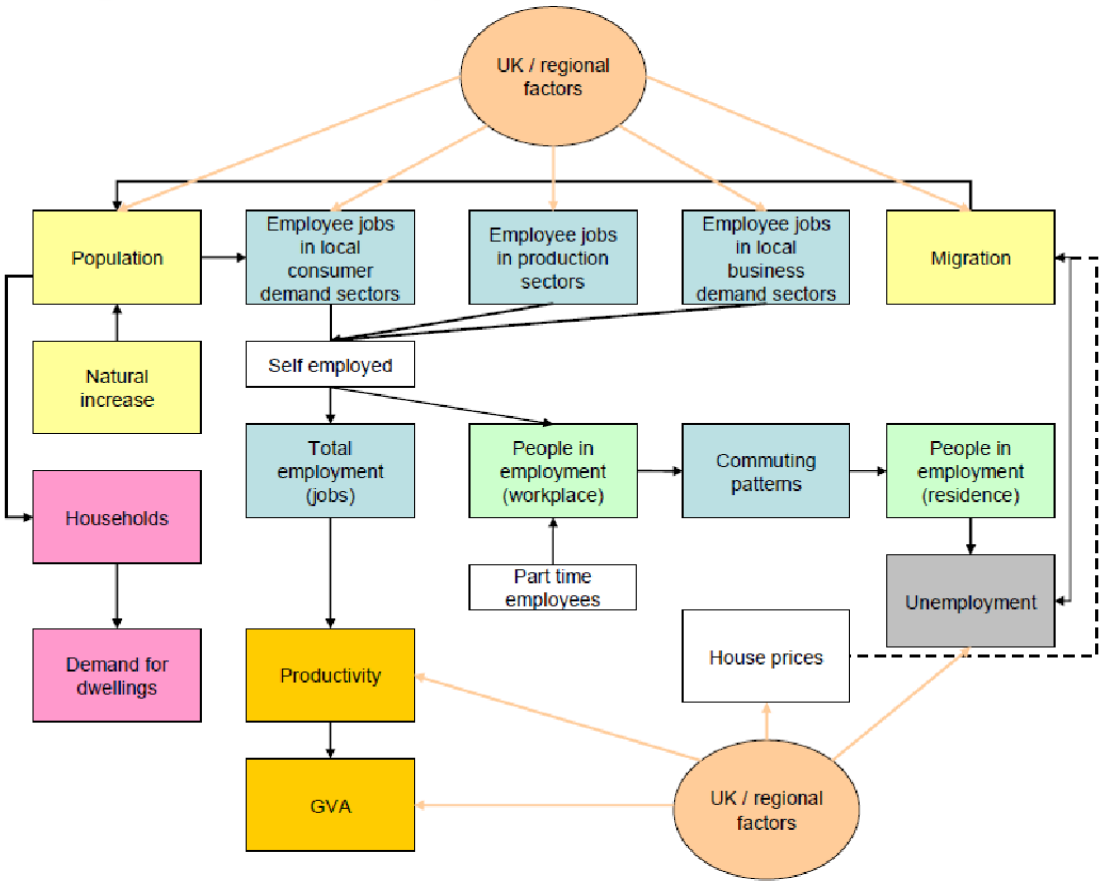
- Finally, the resulting population is translated into household demand, again using the forecasters' own method, using projections of persons per dwelling, rather than the CLG household forecast).

6.7 In short, EEFM uses 'economic migration' to balance the local relationship of jobs to population and housing. Its housing numbers are job-led: they show the numbers of dwellings that would be required to meet housing demand, including the demand resulting from changing job opportunities.

[36] In this report job numbers cover all economic sectors, not just the 'B-class' sectors that occupy 'employment space' (industrial space, warehousing and offices).

[37] Double-jobbing is the difference between jobs and people employed. It results from the fact that some people have more than one job. This is not uncommon, partly because many jobs are part-time.

Figure 6.1 Main relationships between variables in the EEFM model



Source: Oxford Economics, East of England Forecasting Model, Technical Report: model description and data sources, January 2015

6.8 The Edge Phase 7 report took its future job numbers (labour demand) from the EEFM. But with regard to the population and housing that would be required to meet that demand Edge did not use the EEFM figures. Rather, Edge created a separate job-led demographic forecast, using the demographic software PopGroup. One reason for this may be that the EEFM 2014 forecast only ran to 2031, so additional modelling was required to extend the period to 2037 (Edge simply assumed that the job change forecast for 2031 was repeated in each of the following six years).

6.9 Aiming to be as consistent as possible with the EEFM, the Edge labour market modelling used took from the EEFM key assumptions such as economic activity rates. Nevertheless the results of the Edge modelling were quite different to the EEFM ones, predicting that significantly more people and hence more homes would be needed to fill the same number of jobs.

6.10 One likely reason for this discrepancy is that the demographic elements of EEFM work differently to PopGroup, so the age profiles of their populations are different. Also, even more important, while EEFM is both an economic and a demographic model, PopGroup is a demographic model only, so it does not aim to replicate the dynamics of the local labour market and its interaction with the wider economy.

6.11 In the 2015 OAN study we used the Edge job-led housing numbers, called 'the Employed People scenario', to measure job-led housing need. In the present update we have taken a different approach.

6.12 EEFM 2016 covers a longer period than EEFM 2014, extending to 2045. Therefore a separate jobs-to-homes calculation is not necessary, because EEFM already provides job-led population and housing demand for the plan period to 2037 and beyond. We have also considered whether such a separate calculation, along similar lines to the PopGroup modelling in the Phase 7 Edge report, would be helpful as a cross-check. After consultation with Cambridgeshire Insight we concluded that it would not, for two reasons: it is technically difficult due to differences in the demographic modelling, and it may compromise the integrity of the EEFM - which as noted earlier is a fully integrated model. OE, the authors of the model, have advised:

> *'.. when we provide an organisation with employment forecasts, we also provide the forecasts for all indicators for that area given that the forecasts are produced within a fully-integrated system. This ensures that the user is provided with the consistent assumptions on migration, commuting and activity rates within on which the employment forecasts are based. If adjustments are made to some but not all assumptions/forecasts, it is important to acknowledge this and justify the rationale for doing so. Such forecasts should not be sourced as Oxford Economics. Whether the resulting forecasts provide a plausible combination of outputs would be dependent on the scale of the changes made.'*

6.13 Rather than replicate the Edge PopGroup modelling, therefore, in the present update we take job-led population and housing demand directly from the EEFM 2016 forecast. In this we are using EEFM 2016 for the purpose for which it was designed, '*to facilitate the setting of consistent housing and jobs targets*[38]*'.*

Results

6.14 The table below shows these results from EEFM and compares them with the 2014 figures that were used the Edge Phase 7 study and carried into the previous OAN study.

Table 6.1 Jobs and dwellings, EEFM and Edge

Change p.a. 2013-37	EEFM 2016		EEFM 2014 / Edge Phase 7	
	Jobs	Dwellings	Jobs (EEFM)	Dwellings (Edge)
Braintree	490	702	608	845
Chelmsford	725	706	1,013	775
Colchester	928	920	601	920
Three districts	2,143	2,328	2,222	2,540

Source: EEFM, Edge Analytics, PBA

[38] http://cambridgeshireinsight.org.uk/EEFM

6.15 For the three districts in total, the EEFM forecasts around 2,200 net new jobs per annum, regardless of which vintage is used. The new EEFM is very slightly lower and shows slightly fewer new dwellings compared to the 2014 vintage used in our previous study.

6.16 The new EEFM has redistributed some of the job growth between the three districts. Braintree and Chelmsford see lower job growth than in the 2014 vintage but Colchester higher. Similar to the demographic projections discussed earlier, sub-regional totals are more stable and hence easier to forecast than figures for individual authorities, because jobs as well as people are footloose within sub-regional market areas.

6.17 In a town planning context, economic forecasts are sometimes challenged on the grounds that they predict changes in unemployment and commuting that are hard to believe. Another frequent criticism is that predicted changes in commuting are undesirable, because they would harm neighbouring authorities or put pressure on transport infrastructure. To determine whether these criticisms apply in the present case, in the table below we show the EEFM figures for unemployment and commuting. We also compare unemployment with regional benchmarks (for commuting such a comparison would be meaningless).

Table 6.2 Unemployment and commuting, EEFM 2016

	Unemployment			Commuting net inflow		
	2013 %	2037 %	Change Percentage points	2013 thousands	2037 thousands	Change thousands
Braintree	2.3	1.1	-1.0	-16.0	-19.1	-3.1
Chelmsford	2.3	0.7	-1.6	-4.7	-8.1	-3.4
Colchester	2.5	1.2	-1.3	-10.0	-7.6	2.4
East of England	*2.7*	*1.2*	*-1.5*			
South East	*2.2*	*1.0*	*-1.2*			

Source: EEFM 2016. The EEFM unemployment rate is the ratio of the claimant unemployed to the population aged 16-64. This is different from the unemployment rate defined by ONS, which is the ratio of the ILO unemployed (all people who do not have a job but are available for work) to the total labour force aged 16+ (the employed plus the ILO unemployed).

6.18 Unemployment is forecast to fall in all three districts, broadly paralleling regional trends. The relative positions of individual districts remain broadly unchanged over the plan period: unemployment in Braintree and Chelmsford is lower than Colchester, and no district exceeds the East region average. These figures seem to provide a reasonable view of the future. They also suggest that Braintree and Chelmsford are areas of relatively tight labour supply, and in the case of Chelmsford will be even more so by the end of the plan period.

6.19 As regards commuting, all three districts are net exporters of labour. Over the plan period the forecast shows increased outflows from Braintree and Chelmsford and a reduced outflow from Colchester. These changes show the market adjusting to the shifting balance of demand and supply across geographical space; for Braintree and Chelmsford growing demand in London may be a factor driving the growth in out-commuting. For each district the forecast commuting changes amount to some 2-

3,000 people, equal to 3-4% of the resident workforce. The changes look credible, because history shows that it is normal for commuting to fluctuate from year to year.

6.20 The forecast commuting changes also seem unlikely to cause problems for neighbouring authorities or to put pressure on the transport system, because they are so small, both in absolute terms and in relation to the total workforce and total journeys to work. Also for two of the three districts the forecasts show increased out-commuting, which if anything will be helpful to places that need the additional workers.

The Experian forecast

6.21 As a cross-check on the EEFM results we have also considered the latest economic forecasts from Experian. The Experian model works differently to EEFM:

- One of the differences is that in its standard, or baseline, version the Experian assumes population change in line with the latest ONS SNPP (currently ONS 2014). The forecast *resident labour force (labour supply)* for the local authority area is calculated from that population, plus activity rates and commuting.
- Another output of the model is *job demand, (labour demand)* – the number of jobs in the local authority that employers will want to fill. As its name indicates job demand is a demand-side view, unconstrained by local labour supply. Job demand is not shown in the published forecast on Experian's website, but Experian has provided it for this study.

6.22 The forecast also outputs *workplace jobs* (called by Experian 'workforce jobs'), which means the number of jobs located in the area. This number is the lower of the forecast labour demand and forecast labour supply:

- If labour supply is enough to fill the forecast demand, the workforce jobs equals demand.
- If labour supply is too low to meet demand, the number of jobs is the maximum that *can be* filled by the forecast labour supply. In that case, the forecast is saying that job growth in the area will be *supply-constrained*. In other words, to meet demand in full would require net in-migration over and above the official population projection. In line with the PPG, the projection understates housing need and it should be adjusted upwards.

6.23 The 2015 Experian forecast used for the previous 2015 OAN study predicted a supply constraint in just one of the three districts, Chelmsford, and this was vanishingly small. In the September Experian forecast used for this update none of the three districts is forecast to be supply-constrained at any point in the plan period.

6.24 The table below compares the Experian and EEFM job forecasts. It also shows housing demand (numbers of dwellings). In the case of EEFM this is one of the forecast outputs. Under the Experian heading, as the Experian forecast does not count dwellings, we show the CLG 2014 housing numbers – which are based on the same population, ONS 2014.

Table 6.3 Jobs and dwellings, EEFM 2016 and Experian

Change p.a.	EEFM 2016 2013-37		Experian Sep 2016 2013-36	
	Jobs	Dwellings	Jobs	Dwellings
Braintree	490	702	461	623
Chelmsford	725	706	952	656
Colchester	928	920	1,109	866
Three districts	**2,143**	**2,328**	**2,522**	**2,145**

Source: EEFM, Experian, PBA. The Experian forecast only runs to 2036.

6.25 For the three districts together, Experian forecasts:

- 2,522 net new jobs p.a., slightly more than EEFM 2016 (the additional jobs are in Colchester and Chelmsford);
- 2,328 net new dwellings p.a., slightly fewer than EEFM.

6.26 The table below shows the unemployment and commuting changes forecast by Experian. The pattern is similar to the EEFM forecast shown earlier. The unemployment rate falls in Braintree and Chelmsford, though it rises slightly in Colchester. Net commuting outflows increase in all three districts, although for Colchester the increase is tiny. Again the forecast suggests that labour markets in Braintree and Chelmsford will tighten over the period, partly due to demand from London. Again, the forecast changes in both commuting and unemployment seem entirely reasonable.

Table 6.4 Unemployment and commuting, Experian Sep 2016

	Unemployment			Commuting net inflow		
	2013 %	2037 %	Change Percentage points	2013 thousands	2037 thousands	Change thousands
Braintree	6.4	4.2	-2.2	-15.3	-21.9	-6.6
Chelmsford	5.7	3.9	-1.8	-3.6	-5.1	-1.5
Colchester	3.6	4.0	0.4	-3.0	-3.7	-0.7

Source: Experian. Unlike EEFM, Experian uses the ONS definition of the unemployment rate. This is why the EEFM shows a much higher rate than Experian.

Job-led housing need

6.27 In summary, and measure in annual averages over the plan period (Table 6.3):

- EEFM expects that demand across the area will be for 2,143 net new jobs, and as shown in the EEFM tables to meet that demand will require 2,328 net new dwellings.
- Experian expects that demand across the area will be slightly higher at 2,522 jobs, and to meet that demand will require slightly fewer dwellings at 2,145.
- Experian shows fewer dwellings than EEFM for each individual district as well as the area as a whole.

6.28 As regards job demand, both forecasts look reasonable, and the differences between them are small. But they do take slightly different views of how many new homes will be required to provide enough workers to meet labour demand over the plan period. For the purpose of assessing housing need we must choose one or the other view. In our view the EEFM view is preferable, simply because it shows slightly more homes, and in the spirit of positive planning it seems reasonable to err on the positive side.

6.29 Therefore we conclude that the job-led housing need over the plan period is:702 dpa for Braintree, 706 dpa for Chelmsford and 920 dpa for Colchester.

Tendring

6.30 We showed earlier that the official demographic projections for Tendring are not reliable, being severely distorted by UPC. Standard economic forecasts for the Tendring are unreliable for the same reason, because they take demographic inputs from the SNPP and/or MYE.

6.31 To overcome this problem we commissioned from Experian a bespoke forecast, in which population assumptions were taken from our 550-dpa demographic scenario. The scenario was based on Experian's January 2016 forecast. It predicted that labour demand (2013-35) would be 490 net new jobs p.a., and that demand would be met in full if 550 dpa were provided[39]. On this basis there was no justification for a 'future jobs' uplift to the 550 scenario. This conclusion still holds in the light of more recent information, because the latest Experian scenario (September 2016) shows less job growth than the January 2016 scenario, probably due to Brexit. Since the 550 dpa scenario provides enough workers to meet the demand forecast in January 2016, it also provides enough workers to meet the smaller demand forecast in September 2016.

6.32 Experian advised that population growth above the 550 dpa scenario could likely lead to an oversupply of labour, leading to more unemployment and lower activity rates through the 'discouraged worker effect - whereby people decide their chances in the labour market are poor and leave the labour force altogether. This risks being more of a problem in Tendring than many other places, because it is relatively isolated, so there may be less opportunity for surplus labour to be absorbed by increased out-commuting.

Objectively assessed housing need

6.33 To provide an updated assessment of labour market balance for Braintree, Chelmsford and Colchester we have used economic forecasts from both Experian and EEFM. The Experian forecast predicts that population in line with the ONS 2014 projection i.e. our demographic starting point would provide enough workers to meet demand, so there is no need for a 'future jobs' uplift to the projection. The Experian forecast, while otherwise broadly similar to EEFM, suggests that uplifts are required

[39] The Experian labour market scenario was published by Tendring Council in January 2016

for all three districts. In the interests of positive planning we prefer the EEFM view, which suggests job-led housing need over the plan period as follows:

- Braintree 702 dpa
- Chelmsford 706 dpa
- Colchester 920 dpa.

6.34 To arrive at our final assessment of housing need for the three districts, we must also take account of the market signals analysis above, which suggested that the trend-based demographic projections, once adjusted for past undersupply if any, would imply housing need of:

- Braintree 716 dpa
- Chelmsford 805 dpa
- Colchester 866 dpa.

6.35 The 'future jobs' and 'market signals' adjustments overlap, because if the population grows over and above past trends the additional people brought into an area also add to the labour force.

6.36 Therefore the OAN for each district is the highest of the job-led and marketsignals-adjusted figure:

- Braintree 716 dpa
- Chelmsford 805 dpa
- Colchester 920 dpa.

6.37 For Tendring, standard projections and forecasts cannot be relied on, because they are severely distorted by the UPC. To assess labour market balance we used a bespoke forecast from Experian, which implies that there is no justification for an uplift to the housing need that we calculated earlier, with the housing need we calculated on the basis of demographic factors and market signals. Therefore the OAN for Tendring remains 550 dpa.

7 AFFORDABLE HOUSING

7.1 The authorities in the HMA commissioned HDH Planning and Development to provide a Strategic Housing Market Assessment (SHMA) update, which among other things provided a PPG-compliant assessment of affordable housing need.

7.2 The SHMA update has been published separately[40]. In the table below we show its findings on affordable need.

Table 8.1: Affordable housing need and the OAN, dwellings per annum, 2013-37

Dwellings per annum	Affordable housing need
Braintree	212
Chelmsford	175
Colchester	267
Tendring	160
HMA	814

Source: HDH, PBA

7.3 In all cases the affordable need is well below the OAN we have calculated above. Therefore there is no reason for the authorities to adjust that figure to take account of affordable need.

7.4 The SHMA recommends that the authorities consider these findings in the context of the second part of paragraph 029 of the PPG, which says:

> *'The total affordable housing need should then be considered in the context of its likely delivery as a proportion of mixed market and affordable housing developments, given the probable percentage of affordable housing to be delivered by market housing led developments. An increase in the total housing figures included in the local plan should be considered where it could help deliver the required number of affordable homes.'*

7.5 The implication of this advice, as interpreted by planning Inspectors, the courts and the Secretary of State is that there is no requirement that the affordable need be met in full. This principle is now well established, following the Kings Lynn High Court judgment[41] issued in July 2015, which has been widely reflected in plan-making and development management decisions. A recent example is the Secretary of State's decision in the Great Dunmow appeal in August 2016:

[40] HDH Planning and Development for Braintree, Chelmsford, Colchester and Tendring Councils, *Strategic Housing Market Assessment Update,* December 2015. In 2016 the findings of the SHMA relating to Tendring were updated to take account of the OAN determined in the present report. The update is in Appendix 8 to the SHMA update, titled *Revised LTBHM outputs for Tendring,* which was published in 2016.

[41] Kings Lynn & West Norfolk BC v SSCLG [2015] EWHC 2464 (Admin)

'25 The Secretary of State agrees with the Inspector, for the reasons given [in the Inspector's report] that a shortfall in affordable housing should not mean that a substantially greater target should be set for overall housing need or for establishing whether or not the Council has a 5 year housing land supply. He concludes that neither the Framework nor the PPG suggest that the affordable housing needs need to be met in full in the OAN, on the grounds that this may produce a figure which has no prospect of being delivered in practice.'[42]

7.6 The Inspector's report referenced by the Secretary of State (which is appended to the decision) advises as follows:

'6.14 The SHMA identifies a need for 6,200 affordable housing units over the period of the emerging plan and a policy of requiring 40%. However, to extrapolate from this, to argue that the overall LP figure of 10,460 is too low, is to assume an independent relationship between affordable and overall housing numbers. The 40% policy figure is a compromise between viability and shortage. To calculate backwards in this way would be to make an overall provision far in excess of what is needed.

6.15 To grant permissions on this basis would be in no-one's interest. It would depress house prices (ultimately) and be anathema to housebuilders.'

7.7 To sum up, when setting policy requirements (targets) in Local Plans the councils should have additional regard to affordable housing need, as assessed in the SHMA.

[42] (UTT/13/1043/OP),

8 SUMMARY AND CONCLUSIONS

Introduction

8.1 This report updates the Objectively Assessed Housing Need Study produced by Peter Brett Associates (PBA) in July 2015 for Braintree, Chelmsford, Colchester and Tendring Councils. Its purpose is to review the findings of the original report in the light of new evidence, producing a revised housing needs assessment for the same period, 2013-37.

8.2 When read together with the SHMA update (2015 HDH) the evidence addresses all components of housing need as required by policy.

8.3 Following the method set out in the PPG, the 2015 study covered five broad topics:

i Defining the housing market area – to draw the boundary of the geographical area that the assessment should cover;

ii Demography – to arrive at a trend-based projection that provides the 'demographic starting point' of the needs assessment;

iii Past provision and market signals – to determine if the starting point should be uplifted in the light of market evidence;

iv Future jobs – to determine if the starting point should be uplifted on the interest of labour market alignment, in order to provide enough workers to meet the future demand for labour;

v Affordable housing – to summarise the findings of the separate study commissioned by the Councils and its relationship to the OAN assessment.

8.4 In relation to the definition of the housing market area, no new evidence has emerged since the 2015 study. Hence our conclusion, that the four client authorities form a housing market area within the meaning of the PPG (OAN) remains unchanged.

8.5 By contrast, as regards demography much new evidence has come to light, including the 2014-based official demographic projections. The main task of this update is to draw the implications of these new data. The report first considers implications for the 'demographic starting point' and then turns to labour market balance. It goes on briefly to discuss market signals - where the position has not changed significantly – and affordable housing need – where there is no new evidence on the level of need, but the national context has shifted slightly.

8.6 Below, we summarise our findings for Braintree, Chelmsford and Colchester in the next section and for Tendring in the following section. The reason for this separation is that the analysis for Tendring takes a different approach, to correct the severe distortions due to UPC.

Braintree, Chelmsford and Colchester

8.7 Table 8.1 below summarises our updated analysis for the three districts of Braintree, Chelmsford and Colchester, and compares it with the 2015 study. In the table, the sequence of columns follows the stages of the OAN calculation. As noted above

there is no need for an additional increase for affordable housing; the need for affordable housing is much lower than the OAN shown in the table.

8.8 We discuss each stage in turn below. All figures relate to change per annum over the plan period 2013-37.

Demography

8.9 In the table, the first column of data shows the housing need derived from the 2012-based official household projection from the Department of Communities and Local Government (CLG 2012), which was the basis of the 2015 housing needs assessment. The second column shows updated figures derived from the new 2014-based projection (CLG 2014), published in July 2016:

- For the three districts together the figure is virtually unchanged, from 2,214 net new dwellings per annum (dpa) in CLG 2012 for 2,160 dpa in CLG 2014.
- At the level of individual districts, the two projections are also very close. For Braintree, the figure falls by just 64 dpa (9%) between the 2012 and 2014 projections. For the other two districts the differences are even smaller.

8.10 Behind these insignificant differences there are two main factors, both relating to the national assumptions that inform the ONS 2014 projections, from which the CLG household projections are derived. Firstly, the 2014-based projections assume more net migration to the UK than the previous version, though this only impacts on Colchester and Chelmsford. Secondly, the new projections assume shorter life expectancies and hence higher mortality rates, so there are fewer elderly people. These factors impact on household numbers, and hence on housing need, in opposite directions. Other things being equal, more population means more households; but fewer elderly people means fewer households for a given population, because older people tend to live in smaller households.

8.11 Column 3 of the table shows an alternative demographic scenario, created by PBA, which we use as a sensitivity test. While the official projections are based on rolling forward the migration trends of the last five or six years, our Trends 2005-15 scenario is based on a 10-year period; it is also updated to take account of the latest population data, from the ONS 2015 MYE, which post-date the latest official projections.

8.12 For the area as a whole (though not for individual districts) the Trends scenario produces virtually the same result as CLG 2014. This suggests that for the three districts the 2014 projections are not unduly affected by short-term fluctuations that distort underlying migration trends.

Table 8.1Summary assessment: Braintree, Chelmsford and Colchester

Change p.a. 2013-37	ONS / CLG projections		Trends 2005-15	Market signals		Edge Phase 7		EEFM 2016		Experian 2016		Updated OAN	
Column No	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*
	Dwellings 2012-based	**Dwellings 2014-based**	**Dwellings**	**Uplift**	**2014-based dwlgs+ uplift**	**Jobs (EEFM 2014)**	**Dwellings (Edge)**	**Jobs**	**Dwellings**	**Jobs**	**Constrained by ONS 2014?**	**Dwellings**	**Change from SHMA**
Braintree	687	623	507	15%	716	608	845	490	702	461	No	**716**	-129
Chelmsford	657	671	429	20%	805	1,013	775	725	706	952	No	**805**	30
Colchester	870	866	1,207	0%	866	601	920	928	920	1,109	No	**920**	0
Three districts	2,214	2,160	2,143	11%	2,388	2,222	2,540	2,143	2,328	2,522		**2,441**	-99

Source: ONS, CLG, Edge Analytics, EEFM, Experian, PBA.

8.13 From this sensitivity testing and other demographic analysis we conclude that the CLG 2014 projection is a reasonable reflection of past demographic trends. This means that it is the appropriate 'demographic starting point' for the housing needs assessment.

Past provision and market signals

8.14 Our updated analysis of market signals shows no significant change in the relative position of the three districts since the 2015 study. In that study we concluded that the market signals uplift for the HMA as a whole should be in the region of 10%, and did not draw conclusions on uplifts for the individual districts. There was no need for such conclusions, because 'market signals' and 'future jobs' uplifts overlap, and we judged that the future jobs uplifts we were applying exceeded any market signals uplift that could possibly justified.

8.15 In the present update, as discussed later in this document we provide a new analysis of future jobs, which in two of the three districts produces lower housing numbers than the 2015 version. Therefore we have re-examined the evidence on past provision and market signals, aiming to advise on possible uplifts for each district. In line with the PPG there is no clear 'scientific' basis for determining these adjustments; they depend on judgment as well as evidence. In our judgment the following uplifts are justified:

- Braintree: 15%, mainly because housing land supply may have been constrained in the period whose trends the demographic projection rolls forward, and because affordability is poor.
- Chelmsford 20%, also due to possible supply constraints in the past and poor affordability, plus relatively high house prices.
- Colchester 0%, because we found no evidence of undersupply.

8.16 These percentages, and the uplifted housing numbers that result, are shown at Columns 4 and 5 of Table 8.1.

Future jobs

8.17 In the 2015 study, our recommended 'future jobs' uplifts were based on the *Greater Essex Demographic Forecasts Phase 7* study, produced by Edge Analytics for the EPOA. The Edge study started from the job forecasts shown in the EEFM 2014. In its 'Employed People scenario' the study estimated the housing growth that would be required to accommodate enough workers to fill this demand for jobs.

8.18 The job growth forecast by EEFM 2014 is in Column 6 of Table 8.1 and the resulting housing need figures calculated by Edge in Column 7. In the 2015 study, we concluded that this Edge estimate of the job-led housing need provided the best available objective assessment of housing need over the plan period. For the area as a whole this OAN equalled 2,540 dpa – a 15% uplift against the 'demographic starting point'.

8.19 In the present update we have revisited the calculation of labour market balance, based on a new version of the East of England forecast, EEFM 2016. This time there are no Edge estimates of the housing implications of EEFM, because the

EPOA has not commissioned a new phase of the Essex Demographic Forecast. But the gap is filled by the economic forecast itself. While EEFM 2014 only ran to 2031, EEFM now extends to the end of the plan period in 2037 and beyond. And EEFM provides its own figure on job-led housing growth. This figure, labelled 'demand for dwellings' shows how many new homes will be required to house enough workers to meet the forecast demand for labour.

8.20 In Table 8.1, Column 8 shows the job growth predicted by EEFM 2016 for the plan period and Column 9 shows the demand for dwellings that is part of the same forecast. For the three districts together the new forecast shows very slightly lower job growth than the old one – 2,143 net new jobs p.a. against 2,222 in EEFM 2014. It also shows slightly lower housing need, at 2,328 dpa against 2,540 dpa in the Edge report that informed the 2015 OAN study.

8.21 Against the demographic starting point (CLG 2014), for the three districts together the updated job-led housing figure represents an uplift of 9%. For each district the job-led figure is greater than the demographic starting point, suggesting that the population growth shown in the official demographic projections would not provide quite enough workers to meet labour demand over the plan period.

8.22 Although the EEFM housing demand produces similar results to those from Edge, we consider that the EEFM version is technically more robust, because it integrates economic with demographic modelling, using consistent assumptions and methods though the whole analysis.

8.23 Given economic forecasting is highly uncertain, in the 2015 study we checked the EEFM/Edge analysis against a second opinion, from Experian. We have repeated this exercise using the latest version of Experian's local forecasts, dated September 2016. The results are at Columns 10 and 11 of Table 8.1.

8.24 Unlike EEFM, Experian does not forecast the population and housing that would be needed to meet the demand for labour. Rather it forecasts how many jobs an area will accommodate if population change as shown in the 2014-based official demographic projections (ONS 2014); and it estimates whether that population will provide enough workers to meet demand. If the population is not enough, this means that job growth would be constrained by the labour supply resulting from the official projections, and therefore the projections should be uplifted.

8.25 From Column 10 of the table we can see that for the area as a whole Experian 2016 forecasts show more job growth than EEFM 2016 – 2,522 jobs p.a. (Experian) against 2,143 in EEFM 2016. But in regard to demographic implications the two forecasters disagree. For all three districts, Experian estimates that the officially projected population will be enough or more than enough to meet labour demand over the plan period, so there is no need for a 'future jobs' adjustment.

8.26 Within the range we have calculated, we do not have enough evidence to determine where the true answer lies. But the range of uncertainty is narrow, so whichever point we choose is bound to be quite close to this (unknown) true answer. In these circumstances, where the evidence is unavoidably uncertain, in the spirit of positive planning advocated by the NPPF it seems reasonable to err on the positive side.

8.27 Admittedly this could be an overestimate, which may lead to a housing target that oversupplies the true need. In principle oversupply is not desirable, as it may cause unnecessary environmental impacts and other harm. But in this case, because the overestimate is bound to be small any such harm would be minor. Therefore, we base our conclusions below on the EEFM analysis rather than Experian's, because EEFM implies higher housing need.

Objectively assessed housing need

8.28 As explained in the 2015 OAN report, the market signals uplift and future jobs uplift overlap. Therefore the objectively assessed housing need is the greater of:

- The market-signals-adjusted figure at Column 5 of Table 8.1
- The future-jobs-uplifted figure at Column 9 of the table.

8.29 Consequently the objectively assessed housing need is:

- Braintree 716 dpa
- Chelmsford 805 dpa
- Colchester 920 dpa
- Three districts 2,441

8.30 The three-district total is very close (within 5%) the 2,540 dpa calculated in the 2015 study.

8.31 For Braintree the updated calculation assesses housing need at 716 dpa, against 845 dpa in the 2015 study. Behind this 15% reduction are decreases in both the official demographic projection and the EEFM view of future jobs. Braintree Council may choose to reflect this reduction in its emerging Local Plan. For Chelmsford the updated OAN is 805 dpa, close to the 775 dpa in the 2015 study, and for Colchester it remains exactly the same at 920 dpa.

Tendring

Earlier results

8.32 In the July 2015 OAN study we assessed Tendring's housing need over the plan period as 597 dpa. Like the OAN for the rest of the HMA, this was based on the job-led Employed Persons scenario in the Phase 7 Edge study. It was below the CLG 2012 household projections, which implied a 'demographic starting point' of 705 dpa. We found that an OAN lower than the official projections was justified in this case, because the projections were severely distorted by UPC, which is an error in the demographic official statistics. The Edge Employed Persons scenario aimed to correct this error, as well as checking that the projected population would provide enough workers to meet labour demand.

8.33 However, after the OAN study was completed and published the ONS released a report and data tool that provided further formation about the UPC. The new data suggested that the Edge Employed Persons scenario overestimated housing need, because it was based on the wrong age profile, with too many older people – who tend to live in smaller households.

8.34 Tendring Council commissioned PBA to review the findings of the OAN report in the light of the new information. The resulting report was published by the Council in January 2016, as an update to the 2015 OAN study. It recommended a revised 'demographic starting point' of 480 dpa for Tendring over the plan period. We advised that this number was the best estimate based on available information. But it should be used with great caution, because the size of the UPC made all demographic analysis potentially subject to large error.

8.35 With a market signal adjustment applied PBA recommended an OAN range of 500-600 dpa with 550 dpa adopted where a single number was needed. Testing of this number showed no need for any economic uplift. Testing of this number through the Experian model suggested that it did not require a 'future jobs' uplift

The November 2016 update

8.36 The 2014-based official projection sets a 'demographic starting point' for Tendring of 675 dpa. This is very close to the 705 in the same version of the projections. Our technical audit show that the 2014 projections are affected by the same errors as the 2012 ones, and hence they overstate housing need in the same way. The ONS is currently reviewing mid-year population estimates for the years since the 2011 Census, in order to eliminate these systematic errors. But the results will only become available in 2017.

8.37 For now, our analysis of the latest demographic data suggests that the correct 'demographic starting point' remains 480 dpa, with a large potential error. Our analysis of past provision and market signals shows that Tendring's position has not changed, so we still consider that a market signals uplift to 550 dpa is justified. As before, Experian's analysis suggests that there is no need for 'future jobs' uplift.

8.38 In summary, our best assessment of housing need for Tending over the plan period remains 550 dpa.

APPENDIX
DEMOGRAPHIC ANALYSIS AND PROJECTIONS

Mid Essex: Demographic Update

November 2016

John Hollis
Demographic consultant

1. Background

1.1 This paper will:

- Analyse the impact on the three Mid Essex districts (Braintree, Chelmsford and Colchester) of the 2014-based official demographic projections from ONS and CLG[43];
- Create alternative projection scenarios based on the ONS 2015 mid-year population estimate, applying the household representative rates and other assumptions of the official projections.

1.2 The paper relates to the plan period 2013-37.

2. SNPP 2014

2.1 The 2014-based ONS sub-national population projections ('SNPP 2014') were published in May 2016. They are based on UK migration trends over the five years previous to the base year and international migration over the previous six years. For England there is an annual long-term net migration gain of 163,200 – including a cross-border loss of 6,300 to the rest of the UK. This compares to an overall long-term net gain of 143,500 in the ONS 2012 SNPP including a cross-border loss of 6,500. In general the increased net international migration is spread amongst English local authorities according to the average distribution of the gross in and out flows over the previous six years. This in most cases leads to an increased net inflow. Table 1 compares the ONS 2012 and ONS 2014 projections of migration for each of the districts.

2.2 SNPP 2014 shows 2,112 more net migrants into the three districts over the 23 years 2014 to 2037 (see Table 1). Against the total net migration flow of around 58 thousand people, this is a small difference. Projected net flows into Chelmsford and Colchester increase, while there is less net flow to Braintree. In Colchester the difference is mainly due to an assumed much increased net international inflow in the first few years of the projection. This is most likely an assumed return to the UK of Armed Forces (unfortunately the figures do not show forces personnel separately). Chelmsford also has a boost in net International inflow in the first few years of the

[43] All ONS and CLG population and household estimates and projections are © Crown Copyright

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2014 projection. In the other districts there are minor reductions in net migration between the 2014 and 2012 projections.

2.3 As shown in Table 2, the total population in the three districts in 2014 was 260 more than in the SNPP 2012 projection. However, the projected population in 2037 is about a thousand more - due to the increased net migration being partly offset by a reduction in projected natural change, mainly from higher numbers of deaths. The reason is that ONS increased mortality rates nationally in the 2014 projections, having decided that the earlier projections under-estimated them.

2.4 For 2037 the 2014 SNPP shows higher populations in Chelmsford (by 1,800) and Colchester (2,600) but lower populations in Braintree (by 3,300). In relation to the total population of each district, these differences between the two projections are insignificant.

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Table 1: Three Mid Essex Districts: Net Migration by Origin /Destination 2014-37. ONS 2012 SNPP and SNPP 2014

		Braintree	Chelmsford	Colchester	Mid Essex
ONS 2012 SNPP					
2014-15	**England**	800	400	600	1,800
	Cross-border	-100	0	0	-100
	International	100	100	400	600
	Total	**770**	**435**	**1,002**	**2,207**
2036-37	**England**	1,200	700	300	2,200
	Cross-border	-100	0	0	-100
	International	100	100	400	600
	Total	**1,188**	**752**	**695**	**2,635**
2014-37	**Total**	**22,898**	**14,701**	**18,714**	**56,313**
ONS 2014 SNPP					
2014-15	**England**	600	400	700	1,700
	Cross-border	200	0	0	200
	International	-100	400	1,200	1,500
	Total	**728**	**681**	**1,741**	**3,150**
2036-37	**England**	1,100	700	100	1,900
	Cross-border	-100	0	0	-100
	International	100	100	500	700
	Total	**1,174**	**850**	**656**	**2,680**
2014-37	**Total**	**21,642**	**16,727**	**20,056**	**58,425**
2014-37	**Difference**	**-1,256**	**2,026**	**1,342**	**2,112**

Note: Period 2014-37 is analysed as it starts at the base of SNPP 2014

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Table 2: Three Mid Essex Districts: Population Change by Component 2014-37. ONS 2012 SNPP and SNPP 2014

		Braintree	Chelmsford	Colchester	Mid Essex
ONS 2012 SNPP					
2014	**Population**	**150,679**	**171,274**	**179,825**	**501,778**
2014-37	**Births**	40,479	45,374	54,686	140,539
	Deaths	36,479	34,511	36,031	107,021
	Natural Change	4,000	10,863	18,655	33,518
	Net Migration	22,898	14,701	18,714	56,313
	Total Change	**26,899**	**25,564**	**37,369**	**89,832**
2037	**Population**	**177,578**	**196,838**	**217,194**	**591,610**
ONS 2014 SNPP					
2014	**Population**	**149,985**	**171,633**	**180,420**	**502,038**
2014-37	**Births**	39,403	46,099	56,253	141,755
	Deaths	36,751	35,836	36,940	109,527
	Natural Change	2,652	10,263	19,313	32,228
	Net Migration	21,642	16,727	20,056	58,425
	Total Change	**24,294**	**26,989**	**39,369**	**90,652**
2037	**Population**	**174,279**	**198,622**	**219,789**	**592,690**

Note: Period 2014-37 is analysed as it starts at the base of SNPP 2014 Numbers do not add up correctly, due to inconsistent rounding in the published statistics. The published ONS Components of Change tables for the SNPP 2012 and SNPP 2014 only present the data rounded to the nearest 100. Data are available for three areas of origin/destination, Rest of England, Cross Border flows with the rest of the UK and International. The net figures are the differences between the rounded gross flows. The total net migration figures are available from a different source and are detailed to the unit.

2.5 Figure 1 shows the effect of the changed components on the age structure at 2037. At most ages the two projections are very close although the 2014 SNPP has almost 1,400 more children aged 0-15.The most significant changes relate to:

- The very old, where the 2014 projection is now much reduced - by 2,500 persons aged 82+. This reduction, seen in all districts, results from the increased death rates mentioned earlier. It has a knock-on effect to the household projections, as the elderly living in private households have the highest overall household representative rates. (This group also has a high likelihood of requiring residential care, so any calculations for care home places would also have to be revised down.)

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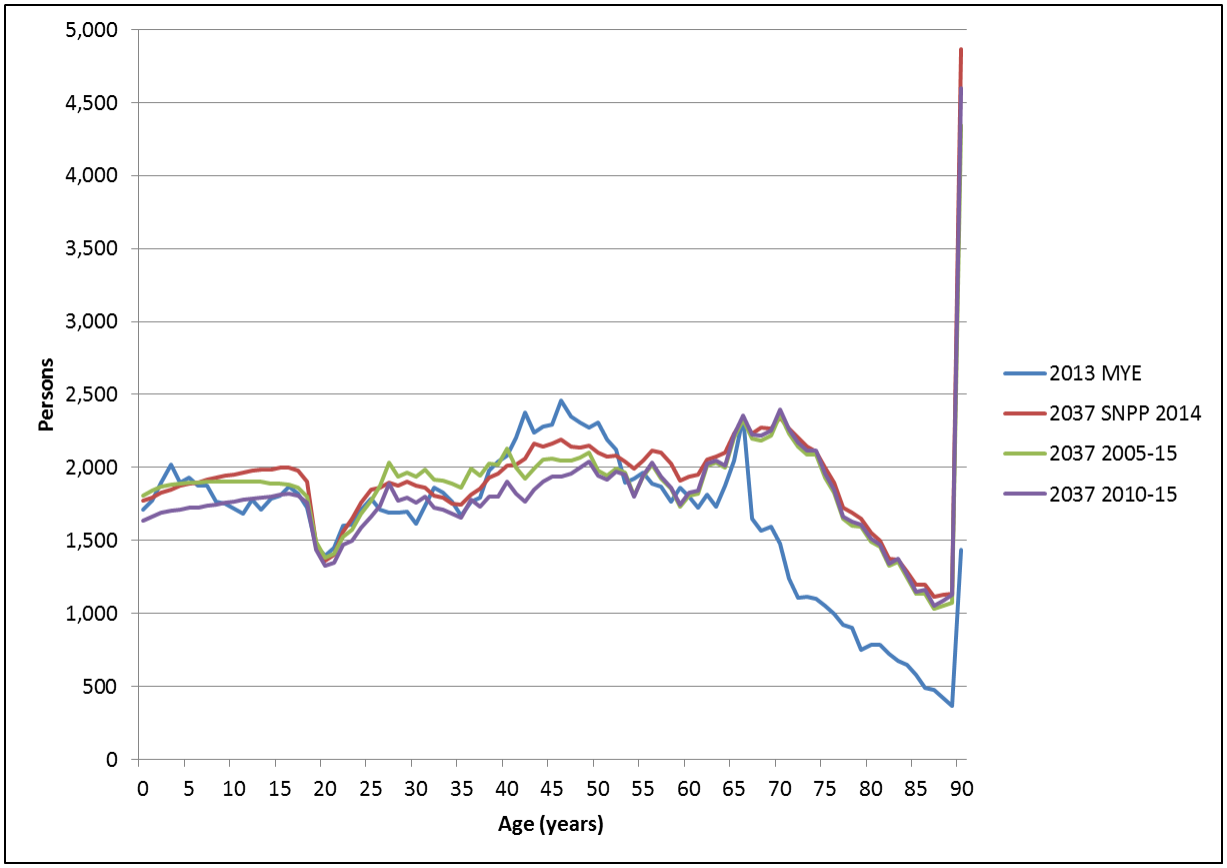
- Persons in their mid-20s to mid-30s, where SNPP 2014 has higher numbers than SNPP 2012 by about 2,500. This increase is only seen in Chelmsford and Colchester and may be assumed to be a consequence of the additional international inflows.

Figure 1: Mid Essex: Age Structure 2037. ONS 2012 SNPP and SNPP 2014



3. CLG 2014 Household Projections

3.1 The 2014-based CLG household projections ('CLG 2014') were published on 12 July 2016. On this occasion both the Stage 1 and Stage 2 results were published simultaneously. Table 3 compares the Stage 1 results from the CLG 2012 and 2014 projections for the plan period 2013-37.

3.2 In the CLG 2014 projection household numbers grow by 50,200, against 51,500 in the 2012 projection. This reduction is due to the shift in age profile, with fewer old people (who have relatively high household representative rates) and more young people (who have lower rates). The largest reduction is in Braintree (1,500 fewer households over the period). Colchester loses just 100 households over the period and Chelmsford gains 300 households. All these differences between the projections are remarkably small.

.

Table 3: Three Mid Essex Districts: Stage 1 Household Projections 2013-37. CLG 2012 and CLG 2014 Projections (thousands)

		Braintree	Chelmsford	Colchester	Mid Essex
2013	**2012 SNPP**	62.6	71.0	73.6	207.1
	2014 SNPP	62.4	71.0	73.6	206.9
2037	**2012 SNPP**	78.6	86.4	93.6	258.6
	2014 SNPP	76.9	86.7	93.5	257.1
2013-37	**2012 SNPP**	16.0	15.4	20.0	51.5
	2014 SNPP	14.5	15.7	19.9	50.2
	Difference	**-1.5**	**0.3**	**-0.1**	**-1.3**

3.4 At Stage 2 the CLG Stage 1 results are converted to eight household types but by a reduced number of age groups that are mainly 10-year groups rather than 5-year. The overall results are shown in Table 4.

3.4 The largest part of the 50 thousand increase in households is expected to be One Person households that are projected to rise by 16 thousand. These are followed by Couples living alone – i.e. with no other adults or dependent children – at nearly 12 thousand. Households with one dependent child are expected to increase by over 10 thousand, of which over 5 thousand are in Colchester. Couples with other adults but no dependent children are invariably families with their own non-dependent children still living with them. 'Other' households are 2 or more unrelated adults not living as a family.

3.5 The fastest growing household types are 'Other' (52 per cent overall) and One Male (42 per cent). There are only minor differences in these percentages in each district. Households with one dependent child grow by 38 per cent, but there is a range from 25 per cent in Braintree to 53 per cent in Colchester.

3.6 Although the Stage 2 results are constrained overall to the results of Stage 1 a different set of basic data for 2001 and 2011 have been used to generate the household headship rates – rather than Stage 1 household representative rates based upon trends since 1971. This can result in some significant differences with the age structure of the two sets of results. (Details can be provided if required.)

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Table 4: Three Mid Essex Districts: Stage 2 Household Projections 2013-37. CLG 2014 Projection

		Braintree	Chelmsford	Colchester	Mid Essex
2013	**One Male**	7,637	8,936	9,818	26,391
	One Female	9,397	10,621	11,730	31,748
	Couple - No Others	18,189	20,800	20,388	59,377
	Couple - Other Adults - No DC	4,929	5,834	5,125	15,888
	Hhold with 1 DC	8,327	8,810	9,809	26,946
	Hhold with 2 DC	7,694	8,700	8,473	24,867
	Hhold with 3 DC	2,865	3,005	3,036	8,906
	Other	3,330	4,259	5,213	12,802
	Total	**62,368**	**70,964**	**73,593**	**206,925**
2037	**One Male**	10,996	12,544	14,066	37,606
	One Female	11,304	11,289	13,946	36,539
	Couple - No Others	22,546	25,271	23,359	71,176
	Couple - Other Adults - No DC	5,780	7,006	5,977	18,763
	Hhold with 1 DC	10,442	11,755	14,984	37,181
	Hhold with 2 DC	7,973	9,810	10,545	28,328
	Hhold with 3 DC	2,664	2,712	2,660	8,036
	Other	5,202	6,315	7,988	19,505
	Total	**76,907**	**86,703**	**93,525**	**257,135**
2013-37	**One Male**	3,359	3,608	4,248	11,215
	One Female	1,907	668	2,216	4,791
	Couple - No Others	4,357	4,471	2,971	11,799
	Couple - Other Adults - No DC	851	1,172	852	2,875
	Hhold with 1 DC	2,115	2,945	5,175	10,235
	Hhold with 2 DC	279	1,110	2,072	3,461
	Hhold with 3 DC	-201	-293	-376	-870
	Other	1,872	2,056	2,775	6,703
	Total	**14,539**	**15,739**	**19,932**	**50,210**

DC = Dependent Children

4. PBA Trends Projections

4.1 In light of the revised fertility and mortality rates used in SNPP 2014 and the small variations in household representative rates of the CLG 2014 projections, we have prepared two alternative projections scenarios, which we call Trends 2005-15 and Trends 2010-15. Both projections are based on the ONS mid-2015 estimates and the base periods from which migration trends have been rolled forward are 2005-15 and 2010-15 respectively. Table 5 summarises the results of the Trends projections for Mid Essex and compares them to the 2012 and 20i4 official projections. For reference

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the table also shows the 2008-based official projections, which were much higher and are now out date[44]. Equivalent tables for each of the districts are shown in Appendix 1.

4.2 In terms of total population each of the Trends projections is a little higher at 2037 than both the recent ONS projections with annual growth of 4,033 (2005-15) and 4,369 (2010-15) per year 2013-37 compared to 3,988 for SNPP 2014 and 3,917 for the ONS 2012 SNPP. Projected household growth at 2,070 to 2,254 per annum compared to 2,160 for the CLG 2014 projections. This is largely a consequence of the slight differences in the projected age structures between the projections (see Figure 3). The household figures convert to a requirement for average annual net new homes of 2,143 to 2,334 per annum compared to 2,160 for CLG 2014 and 2,214 for CLG 2012. Households have been converted to a requirement for homes based on the 2011 Census relationships between occupied and total household spaces in each district. The main differences in terms of population and households are due to the differences in the levels of migration assumed in the projections. These are shown in Figure 2.

4.3 The 2005-15 Trends projections have relatively low levels of migration as they have been influenced by years 2005-10 that saw weaker net inflows to the area. The two ONS projections show fairly close outcomes while the highest figure s are associated with the 2010-15 Trends projection reflecting the stronger recent net inflows into the area. District level net migration is shown in Appendix 2.The different net migration levels together with the different age profiles of the flows create different population structures at 2037. These are shown in Figure 3.

[44] The ONS 2008 SNPP was influenced by estimated high migration levels before downward adjustment following the results of the 2011 Census – see Figure 2.

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Table 5: Mid Essex: Projections to 2037 compared (thousands except pa figures)

	ONS/CLG 2008	ONS/CLG 2012	ONS/CLG 2014	2005-15 Trends	2010-15 Trends
Population					
2001	445.8				
2011	502.9	489.6	489.6	489.6	489.6
2013	516.7	497.6	497.0	497.0	497.0
2016	536.9	510.4	510.9	510.9	511.2
2021	569.8	532.1	532.3	531.2	533.3
2026	601.3	552.7	552.8	551.6	555.5
2031	629.4	571.5	571.9	570.9	576.6
2037		591.6	592.7	593.8	601.8
2001-11	57.1	43.9	43.9	43.9	43.9
2013-37		94.0	95.7	96.8	104.9
p.a.		3,917	3,988	4,033	4,369
Households					
2001	183.1				
2011	211.4	202.8	202.8	202.8	202.8
2013	218.6	207.1	206.9	206.9	206.9
2016	229.5	214.2	214.1	214.1	214.3
2021	247.2	225.8	225.5	224.5	225.6
2026	263.9	236.6	235.9	234.4	236.5
2031	279.4	247.0	245.9	244.4	247.5
2037		258.6	257.1	256.6	261.0
2001-11	28.4	19.7	19.7	19.7	19.7
2013-37		51.5	50.2	49.7	54.1
p.a.		2,144	2,092	2,070	2,254
Homes					
2001-11	29.3	20.4	20.4	20.4	20.4
2013-37		53.1	51.8	51.4	56.0
p.a.		2,214	2,160	2,143	2,334

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Figure 2: Mid Essex: Net Migration, estimates and projections compared 2001-39 (thousands)

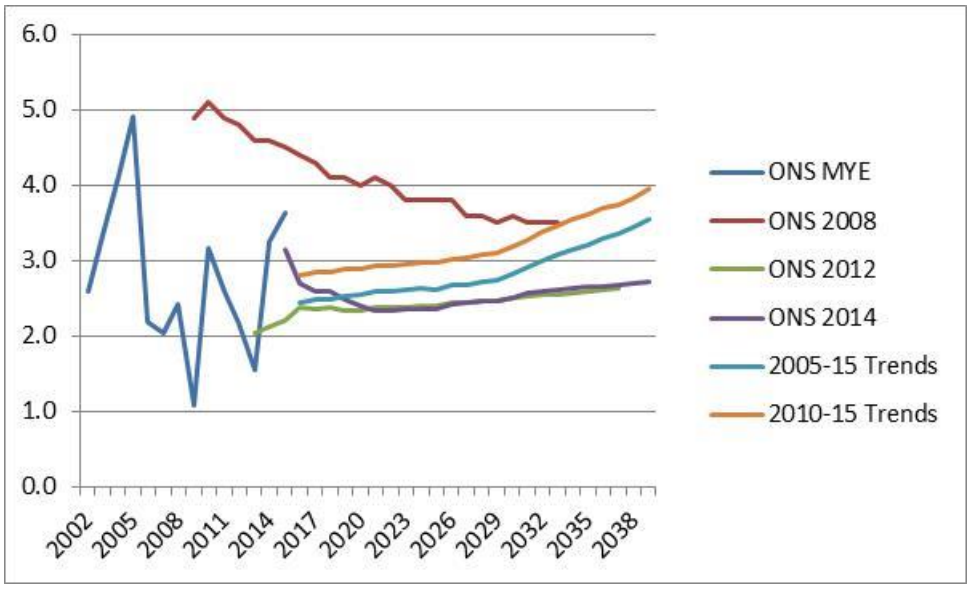
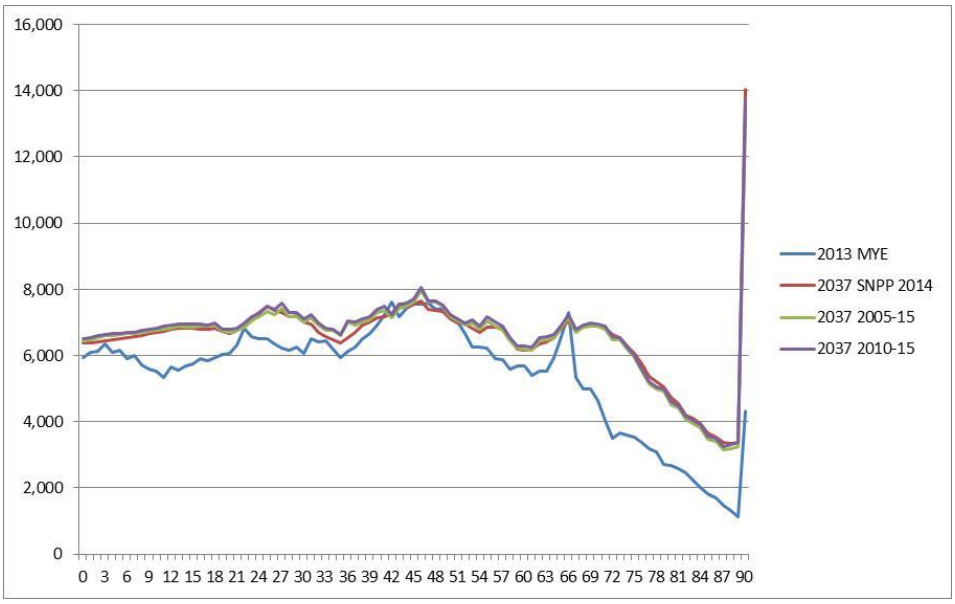


Figure 3: Mid Essex: Age Profile: 2013 and 2037, projections compared



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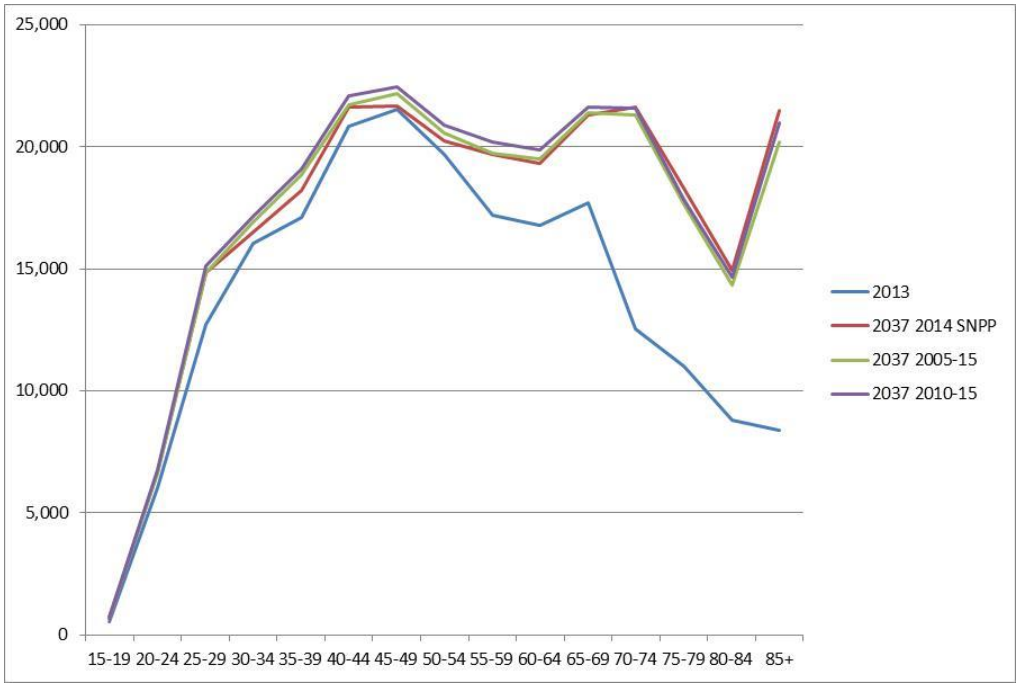
4.4 All projections show increases between 2013 and 2037 in the population at virtually all ages. The most significant changes are the very large increases projected at all ages from the late 60s. There are subtle differences in the age structures at 2037 that are difficult to determine from Figure 3 but the 2005-15 Trends projection has fewer elderly persons than SNPP 2014 with the 2010-15 Trends projection being intermediate. The differences are better seen in Figure 4 that presents households by age of representative. All projections use the same assumptions about institutional population and relationship and share the same household representative rates. The major differences between 2013 and each of the projections for 2037 are the projected increases at all ages over 50. It is clear that the CLG 2014 projection has more households than the Trends projections at all ages over 70 but at younger ages the differences are very small although the 2010-15 Trends projection has more households at all ages up to 65-69.

Figure 4: Mid Essex: Age Profiles of Household Representatives at 2013 and 2037, projections compared



5 Comparisons with EPOA 7

5.1 Table 6 compares the two latest CLG household projections with two of the EPOA 7 projections published by Edge in April 2015 and the two Trends projections. The projections show annual average requirement for new homes. The conversion from households to homes for the CLG 2012 and the EPOA 7 projections are as published by Edge, The other projections have been converted using the 2011 Census ratio of total to occupied household spaces. The difference between the two methods when applied to the CLG 2012 projections is no more than 2 per year in any district and only 4 for Mid-Essex.

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Table 6: Three Mid Essex Districts: Annual Average New Homes Required (OANH) 2013-37, projections compared

	(Base Period)	Braintree	Chelmsford	Colchester	Mid Essex
CLG 2012	**2006/7-12**	686	657	868	2,211
EPOA 7 PG-5yr	**2008-13**	579	618	844	2,041
EPOA 7 PG-10yr	**2003-13**	668	608	891	2,167
CLG 2014	**2008/9-14**	623	671	866	2,160
2010-15 Trends	**2010-15**	449	540	1,345	2,334
2005-15 Trends	**2005-15**	507	429	1,207	2,143

5.2 The differences between the projections are partly due to different average levels of net migration in the base periods as well as the different approaches to how migration has been projected. The two CLG projections have ignored UPC as being an element of migration in their base years. UPC is included in the other four projections. The range of the two EPOA projections for Mid Essex is very similar to the range of the two more recent Trends projections. Both pairs are below the levels projected by CLG. However the distribution amongst the districts is different.

6 Conclusions

6.1 SNPP 2014 shows a slightly higher population for Mid Essex at 2037 than the ONS 2012 SNPP but the differences in each of the districts are small. The additional growth is a result of slightly higher projected net immigration, coupled with reduced natural change that is largely a consequence of higher numbers of deaths. The 2014 base population was also slightly higher. However, this gives rise to a slightly lower projected increase in households in the CLG 2014 projection over the period 2013-37 compared to the CLG 2012 projection. This is a consequence of the higher projected deaths and hence the reduced projection of the elderly, who have the highest overall household representative rates.

6.2 Updated migration trends projections that use the ONS mid-2015 population estimate as their base result is slightly reduced numbers of required average annual net new homes over the 2013-37 period than the CLG 2014 projection. While the CLG 2014 projection implies 2,160 new homes the new Trends projections show a requirement of between 2,143 (2005-15 Trends) and 2,334 (2010-15) per year. The differences are mainly a consequence of the different age structures projected in the three projections.

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6.3 As shown in Figure 3 the main population increases projected in Mid Essex are of persons over age 60 - over 63,200 of the 95,700 increase in SNPP 2014. This is a feature – to greater or lesser degree – in each district. The change will shape the type and size of accommodation necessary over the plan period.

6.4 All recent projections for these three Mid Essex districts have shown, when combined, a reasonably consistent OAN, ranging from 2,041 (EPOA 7 PG-5yr) to 2,334 (2010-15 Trends). However, individually there are large differences between the projections at district level. The largest differences are in Colchester where both the ONS projections appear to have gone against recent migration trends and show net migration into Colchester falling away to levels akin to the lowest since 2001. In Braintree migration has fallen since 2011, but this is not well reflected in the ONS 2014 projection. In Chelmsford the ONS 2014 projection shows net migration at levels higher than the largest net inflow since 2004. The EPOA projections, If updated to account for two more years migration and the CLG 2014 household projections, would almost certainly better reflect recent changes much as do the two Trends projections. Given the uncertainties, and the similarity for Mid Essex of the ONS/CLG 2014 projections and the 2005-15 Trends projections, the most reliable basis for OAN at district level is the 2005-15 Trends projection.

7 Endnote

7.2 7.1 Tendring has been left out of consideration in this note as it must be considered as an exception due to the very high levels of UPC that were estimated for 2001-11. In the ten years the population was estimated to have fallen by 740 residents. However, the change analysis shows net UK migration of 17,900, net international migration of 1,500 and natural loss (excess of deaths over births) of 8,600. The balance was mainly a loss based upon UPC of -10,500. This is a very uncertain position from which to run meaningful demographic projections. Are the ONS estimates since 2011 more accurate than those prepared in the first years after 2001? Uncertainty will remain at least until the current ONS work on migration estimation is complete. This is anticipated to lead to revisions to population estimates since 2011 in time for use in the ONS 2016 SNPP.

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Appendix 1: District Summaries

Table A1: Braintree: Projections to 2037 compared (thousands except pa figures)

	ONS/CLG 2008	ONS/CLG 2012	ONS/CLG 2014	2005-15 Trends	2010-15 Trends
Population					
2001	132.5				
2011	146.9	147.5	147.5	147.5	147.5
2013	150.1	149.5	149.1	149.1	149.1
2016	155.0	153.2	152.0	151.3	151.1
2021	163.5	159.6	157.5	156.1	155.0
2026	171.8	165.8	163.1	160.9	158.5
2031	179.2	171.4	168.3	165.2	161.3
2037		177.6	174.3	170.4	164.3
2001-11	14.4	15.0	15.0	15.0	15.0
2013-37		28.1	25.2	21.3	15.2
p.a.		1,171	1,049	886	634
Households					
2001	54.5				
2011	62.3	61.2	61.2	61.2	61.2
2013	64.1	62.6	62.4	62.4	62.4
2016	67.0	64.7	64.2	63.9	63.9
2021	71.7	68.4	67.5	66.6	66.4
2026	76.3	71.8	70.7	69.1	68.6
2031	80.5	75.0	73.6	71.5	70.6
2037		78.6	76.9	74.2	72.8
2001-11	7.8	6.8	6.8	6.8	6.8
2013-37		16.0	14.5	11.8	10.5
p.a.		668	606	494	437
Homes					
2001-11	8.1	6.9	6.9	6.9	6.9
2013-37		16.5	14.9	12.2	10.8
p.a.		687	623	507	449

.

Table A2: Chelmsford: Projections to 2037 compared (thousands except pa figures)

	ONS/CLG 2008	ONS/CLG 2012	ONS/CLG 2014	2005-15 Trends	2010-15 Trends
Population					
2001	157.3				
2011	171.1	168.5	168.5	168.5	168.5
2013	175.0	170.2	170.3	170.3	170.3
2016	180.8	173.5	173.9	173.4	173.6
2021	190.4	179.6	180.1	177.0	178.6
2026	199.5	185.5	186.2	179.9	183.1
2031	207.6	190.9	192.0	182.0	187.0
2037		196.8	198.6	184.2	191.4
2001-11	13.8	11.2	11.2	11.2	11.2
2013-37		26.6	28.4	13.9	21.1
p.a.		1,108	1,182	580	880
Households					
2001	64.7				
2011	72.6	69.8	69.8	69.8	69.8
2013	74.8	71.0	71.0	71.0	71.0
2016	78.1	73.1	73.1	72.8	72.9
2021	83.5	76.5	76.7	75.1	75.7
2026	88.6	79.8	80.0	77.1	78.3
2031	93.3	82.9	83.1	78.9	80.8
2037		86.4	86.7	81.0	83.6
2001-11	7.9	5.0	5.0	5.0	5.0
2013-37		15.4	15.7	10.1	12.7
p.a.		643	656	419	528
Homes					
2001-11	8.1	5.2	5.2	5.2	5.2
2013-37		15.8	16.1	10.3	13.0
p.a.		657	671	429	540

Comment: ONS projections show migration rising by 2037 to levels not seen since 2003-04.

.

Table A3: Colchester: Projections to 2037 compared (thousands except pa figures)

	ONS/CLG 2008	ONS/CLG 2012	ONS/CLG 2014	2005-15 Trends	2010-15 Trends
Population					
2001	156.0				
2011	184.9	173.6	173.6	173.6	173.6
2013	191.6	177.9	177.6	177.6	177.6
2016	201.1	183.7	185.0	186.2	186.5
2021	215.9	192.8	194.6	198.1	199.7
2026	230.0	201.4	203.5	210.8	213.8
2031	242.6	209.1	211.6	223.7	228.3
2037		217.2	219.8	239.2	246.1
2001-11	28.9	17.6	17.6	17.6	17.6
2013-37		39.3	42.2	61.6	68.5
p.a.		1,638	1,757	2,568	2,855
Households					
2001	63.9				
2011	76.5	71.8	71.8	71.8	71.8
2013	79.7	73.6	73.6	73.6	73.6
2016	84.4	76.4	76.8	77.4	77.5
2021	92.0	80.9	81.3	82.8	83.5
2026	99.0	85.1	85.3	88.2	89.6
2031	105.7	89.1	89.2	93.9	96.1
2037		93.6	93.5	101.4	104.5
2001-11	12.6	7.9	7.9	7.9	7.9
2013-37		20.0	19.9	27.8	30.9
p.a.		834	830	1,157	1,289
Homes					
2001-11	13.2	8.3	8.3	8.3	8.3
2013-37		20.9	20.8	29.0	32.3
p.a.		870	866	1,207	1,345

Comment: ONS projections show migration falling by 2037 to levels seen only once since 2002-03.

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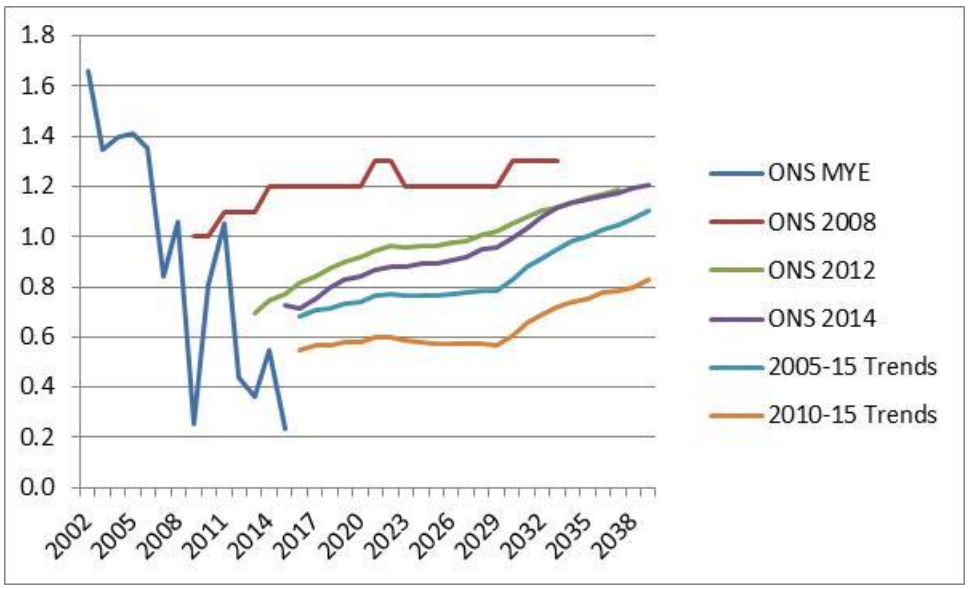
Appendix 2: District Migration

The following tables show estimated 'Migration and Other Changes', including UPC, between 2001 and 2011, from the ONS mid-year estimate change analyses between 2001-02 and 2014-15 plus the projected net migration from recent ONS projections and the two Trends projections prepared for this report.

Table A4: Braintree: Net Migration, estimates and projections, 2001-39 (thousands)



Braintree has had a generally declining net migration since a high point in 2001-02. UPC between 2001 and 2011 was estimated as an average gain of just over 100 per year. All projections show a rising trend but starting from successively lower levels.

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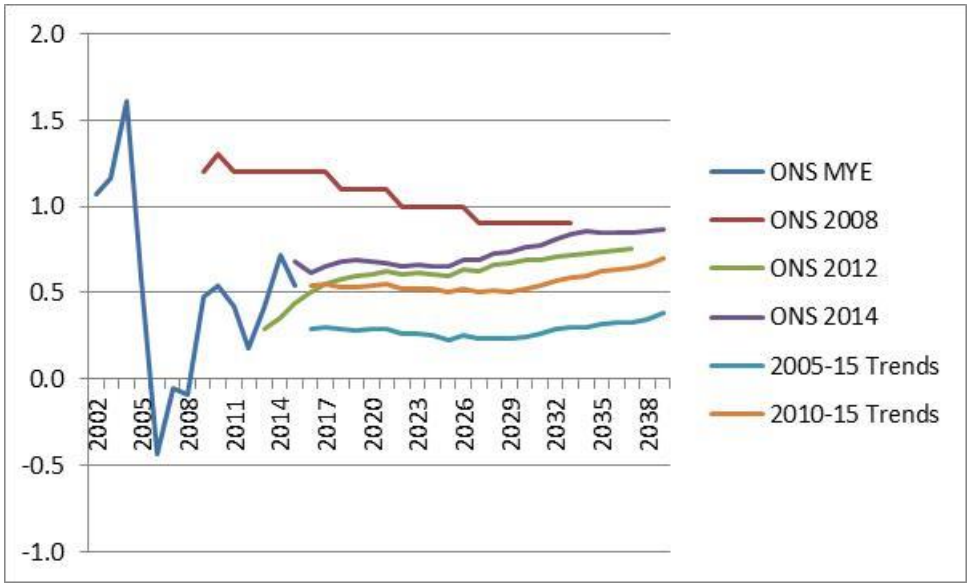
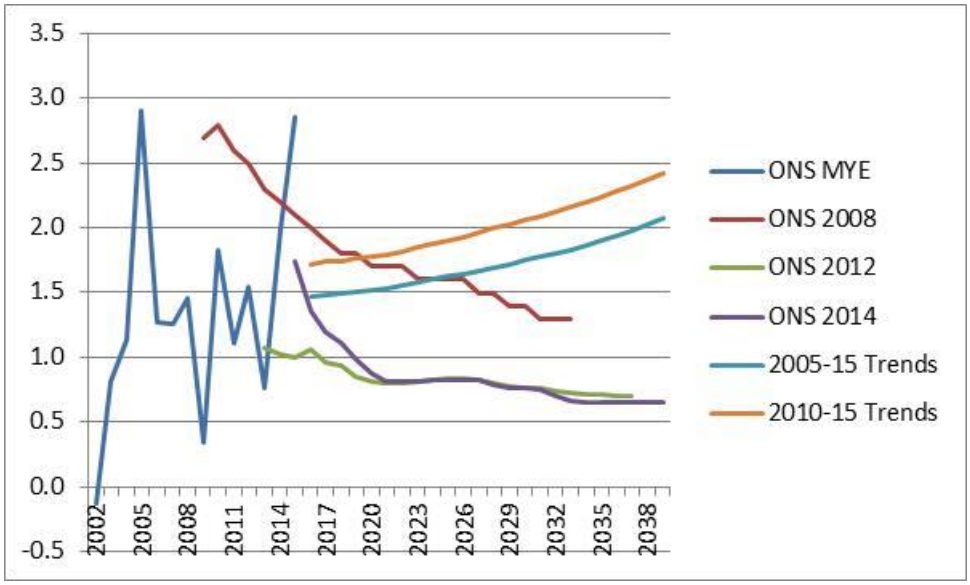
Table A5: Chelmsford: Net Migration, estimates and projections, 2001-39 (thousands)



Chelmsford has had a rising net migration since a net loss of over 400 in 2005-06. UPC between 2001 and 2011 was estimated as an average gain of just over 100 per year. The large net inflow of over 1,600 in 2003-04 does not feature in the bases of any of the projections except the ONS 2008 SNPP. All recent projections show a near static trend with some increases from about 2025.

Table A6: Colchester: Net Migration, estimates and projections, 2001-39 (thousands)



Colchester has had a volatile migration trend. The peak in 2004-05 is due to a large net international inflow while the peak in 2014-15 is split evenly between UK and International net inflows. UPC between 2001 and 2011 was estimated as an average loss of just over 400

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per year. This partly explains the very high migration projected in the ONS 2008 SNPP. Since 2011 ‘Other Changes’ have added over 300 persons. These are not further defined by ONS but are most likely armed forces transfers. Recent ONS projections show a sharp initial decline due to assumptions about International flows. This may also be related to armed forces transfers from overseas. The two Trends projections are based solely on past movements in the base periods and are not affected by future assumptions on specific groups of movers.

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Tendring: Note

November 2016

John Hollis

Demographic Consultant

5. Background

1.3 This Note will briefly describe a projection for Tendring that shows the impact of providing an average of 480 dwellings (homes) per year (dpa) between mid-2013 and mid-2037. Results are compared to recent ONS and CLG projections[45] and the two recent migration trends projections.

1.4 This Note also follows on from the report to Tendring DC '*Tendring: OAN Validation*' of January 2016 that also described a projection based on 480 dpa between 2013 and 2037. This level of development was chosen as it was the highest average level of new homes achieved in Tendring over a recent five-year period (2004-09).

1.5 The new projection is a potential alternative starting point for calculating OAN that utilises migration characteristics that take account of the very high levels of UPC between 2001 and 2011 that are not considered by ONS and which indicate a different, more balanced, age structure of population change.

6. Method

2.1 Two initial population projections for Tendring are prepared based upon the ONS mid-2015 estimates. One uses average recent high migration trends and the other average recent low trends. The trends are the highest and lowest nine years between 2001 and 2015. The low trends population is converted to households by applying the representative rates and other assumptions of the CLG 2014 projections. Households are converted to homes using the 2011 Census ratio of occupied to total household spaces (0.9264). Projected additional homes between 2013 and 2037 are calculated and compared to 11,520 – 24 years at 480 per year. The difference is spread evenly between 2015 and 2037. This is an average provision of 464 homes per year. Between 2013 and 2015 the CLG household projection method applied to the 2015 ONS population estimate implies growth of 1,219 households, equivalent to 1,315 homes leaving the requirement for 10,205 homes between 2015 and 2037 – 464 per year.

2.2 A new population is prepared that is a weighted average between the low and high projections. This is also converted to households and homes and compared to the planned development schedule of 464 homes (2015-37). A new set of weights are

[45] All ONS and CLG population and household estimates and projections are © Crown Copyright

prepared. This process iterates until the conversion to households and homes matches the development schedule. A summary of the results is shown in Table 1.

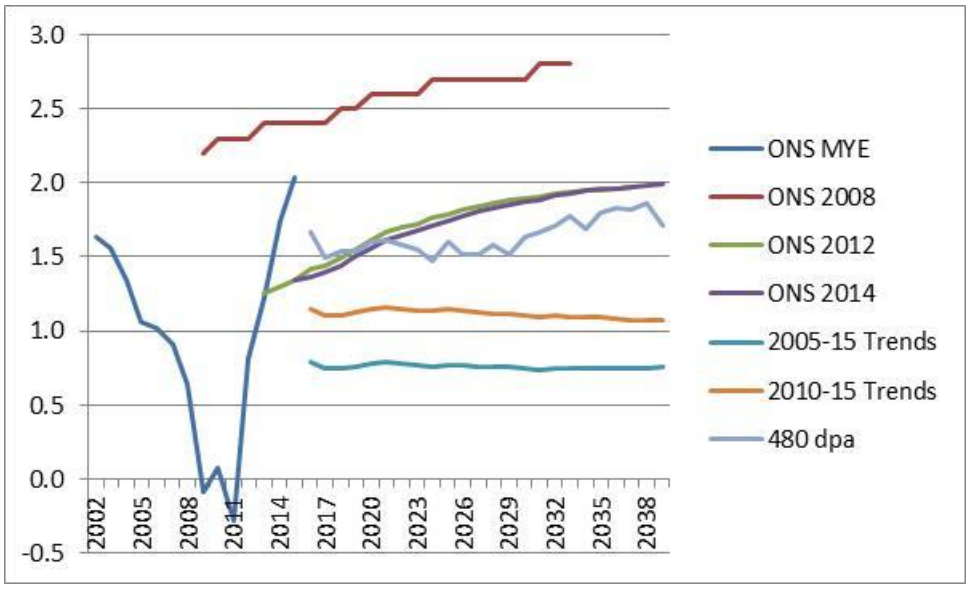
Table 1: Tendring: Projections to 2037 compared (thousands except pa figures)

	ONS/CLG 2008	ONS/CLG 2012	ONS/CLG 2014	2005-15 Trends	2010-15 Trends	480 dpa
Population						
2001	138.8					
2011	152.4	138.1	138.1	138.1	138.1	138.1
2013	155.8	138.9	138.7	138.7	138.7	138.7
2016	161.1	141.2	141.2	141.3	141.6	142.1
2021	170.8	146.3	145.7	142.0	144.1	147.0
2026	180.8	152.0	151.2	143.1	146.9	152.2
2031	190.5	157.9	156.9	143.8	149.1	157.3
2037		164.5	163.4	143.9	150.9	163.6
2001-11	13.6	-0.7	-0.7	-0.7	-0.7	-0.7
2013-37		25.6	24.7	5.2	12.2	24.9
p.a.		1,068	1,029	216	507	1,038
Households						
2001	61.6					
2011	68.8	62.1	62.2	62.2	62.2	62.2
2013	70.7	62.6	62.5	62.5	62.5	62.5
2016	73.9	64.0	63.8	63.8	64.0	64.1
2021	79.6	67.0	66.6	64.2	65.4	66.3
2026	85.5	70.4	69.9	64.6	66.9	68.4
2031	91.3	74.1	73.4	65.1	68.3	70.6
2037		78.3	77.5	65.2	69.4	73.2
2001-11	7.2	0.5	0.6	0.6	0.6	0.6
2013-37		15.7	15.0	2.7	6.9	10.7
p.a.		654	625	111	287	445
Homes						
2001-11	7.7	0.6	0.6	0.6	0.6	0.6
2013-37		17.0	16.2	2.9	7.4	11.5
p.a.		706	675	120	310	480

3 Results

3.1 Figure 1 shows recent estimated and projected migration levels for Tendring. Data from the mid-year estimates includes the impact of UPC between 2001 and 2011, which is not included in the migration bases of the ONS projections.

Figure 1: Tendring: Net Migration, estimates and projections compared 2001-39 (thousands)



3.2 The 480 dpa projection shows a rising trend of net migration into Tendring of between 1,500 and 2,000 per year. This level is similar to the average as estimated by ONS for 2013-15 and is generally lower than the level assumed by the ONS SNPP 2014. However, it is but higher than recent 5-year and 10-year trends projections.

3.3 Figure 2 shows the age structure of the 480 dpa projection at 2037 and compares this with other recent ONS and migration trends projections as well as the 2013 mid-year estimate. Compared to the ONS SNPP 2014 the 480 dpa projection shows fewer persons over 60 but more between the mid-20s and early 50s. This younger profile also has more children. All projections are consistent in showing the most significant change since 2013 as being the growth in the population aged over 65, and particularly aged over 90.

3.4 The 480 dpa projection has a population outcome in 2037 that is very similar to the ONS SNPP 2014; however the number of households is lower. This is because the 480 dpa projection, being based on migration levels over a longer period, has an age structure that is lower at the upper ages, where household representation is highest, and contains more persons in the main working ages and their children.

Figure 2: Tendring: Age Profile: 2013 and 2037, projections compared